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**Collaborative Learning
and
Peer-tutoring
in Mathematics**

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Abstract

This study sought to promote learning by enhancing the level of higher order cognitive talk among collaborative groups engaged on mathematical tasks. An intervention, designed to utilise structures such as listening, multiple retelling, questioning, elaboration, and justification to promote high-level discourse, was trialled and refined using an action research classroom study.

The collaborative skills training programme was based on Medcalf's peer-tutoring model (1997) and adapted to incorporate features of Lyman's Think-Pair-Share collaborative model (1992). The teacher's role was seen as crucial to the development of collaborative group practices which establish the structures for high-level discourse. Collaborative group practices were reinforced in follow-up class discussions where the teacher facilitated student reflection on the mathematical strategies and the collaborative group strategies. It was also seen as important for the teacher to select appropriately levelled tasks which maintained the learner in his/her Zone of Proximal Development.

Findings indicated that the structured intervention enhanced the level of higher order discourse between students and that it was an effective procedure to mediate learning. Several patterns of discourse were also identified that could provide useful indicators of higher level discourse to teachers during daily classroom observations.

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