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COOPERATIVE LEARNING: ESSENTIAL COMPONENTS

Review by Lachlan Crawford and Chua Tee Teo

INTRODUCTION

Cooperative learning in primary schools in Singapore is attracting increasing attention as an alternative to the more traditional competitive and individualistic approaches to teaching and learning (Crawford, 1995). It is often used for sessions of sixty or perhaps ninety minutes, once or twice a week, as an alternative to the more formal approach where the teacher dominates the proceedings and pupils are expected to sit passively and listen. Typically, cooperative learning sessions are well-structured and well-organised. Decisions about placing pupils in heterogenous, multi-ethnic groups are made before the start of the lesson; materials are readily available; children move into their groups in a well-ordered, disciplined fashion; tasks are made clear to the children and teachers check for understanding.

However, many teachers assume that pupils are equipped with the all-important social skills needed to make cooperative learning a success. Unfortunately, this is not always the case. This article briefly reviews research on cooperative learning and examines *five* essential components that cooperative learning sessions should have to make teaching and learning effective.

REVIEW OF RESEARCH

Cooperative learning is 'the instructional use of small groups that allows students to work together to maximise their own and each other's learning' (Johnson, Johnson

and Holubec, 1994, p. 3). It is an instructional practice grounded in social interdependence theory, cognitive developmental theory and behavioural learning theory. Cooperation is believed to be a form of 'positive interdependence' which results in promotive interaction as individuals encourage and facilitate each other's efforts.

A large number of research studies have been conducted in the U.S.A. on the effects of cooperative learning procedures on student achievement. Johnson et al. (1981), Johnson and Johnson (1989) and Slavin (1990) working with a wide range of age groups, in many subject areas, and in tasks involving concept attainment verbal problem solving, categorization, spatial problem solving, retention and memory conclude that cooperative learning tends to promote higher academic achievement than the more traditional competitive and individualistic classroom structures. Kagan (1992) suggests that the higher academic achievement may be the result of children having more opportunities to participate in lessons; more opportunities to give and receive help; increased motivation to succeed because others encourage their peers to succeed; and pupils with poor study strategies having opportunities to witness students who have more efficient study strategies.

From a different research perspective, Sharan (1980), Slavin (1983), Morrow et al. (1997) and Mitchell (1997) found that the benefits to students working cooperatively in the classroom include

greater self-actualization and improved mental health, increased trust, acceptance and support of each other, and improved relations among group members with reduced amounts of conflict. They also found that cooperative and group learning are considerably more effective in fostering social and inter-personal skills than competitive and individualistic classroom structures. These research findings are particularly relevant in Singapore where the Government continually stresses the importance of generating a harmonious, multi-racial society by encouraging students to gain greater understanding and respect for other ethnic groups.

ESSENTIAL COMPONENTS

To achieve the benefits cited above in the review of research, Johnson, Johnson and Holubec (1994) suggest that cooperative learning sessions should have *five* essential components. These are summarised below.

Positive interdependence – the heart of cooperative learning. It is a condition in which group members are able to perceive their inter-relatedness and that the success of the group depends on the success of the individuals in the group.

Face to face positive interaction – the promotion of each member's learning through one-to-one teaching and explaining of concepts being learnt. Group members help each other to integrate new knowledge into previous knowledge, encourage and praise each other's efforts.

Individual accountability/personal responsibility – the process of assessment

and feedback of performance of each member. The purpose of such a mode of evaluation is to enable the group to help weaker members so that each individual will grow stronger intellectually and hence make a greater contribution to the group.

Interpersonal and small group skills – important elements of cooperative learning. Pupils need to be taught leadership, decision-making, trust-building, communication and conflict-management skills in addition to skills to facilitate group discussion, to take notes and to ask good questions if cooperative learning is to work among the diverse members.

Group processing – essentially the evaluation of the progress of the group with regard to the attainment of goals, whether actions by particular members are helpful and whether a particular course of action by the group should be continued.

CONCLUSION

Cooperative learning is being used more frequently in primary schools in Singapore as an alternative to the traditional teacher-oriented classroom. It is based on the maxim that academic achievement is greater when there is unity of thought and action among students working in groups. To ensure that cooperative learning is, indeed, cooperative and effective in terms of positive educational outcomes, five essential components i.e. *positive interdependence, face to face positive interaction, individual/personal responsibility, interpersonal and small group skills, and group processing* should be an integral part of group work sessions.

IMPLICATIONS

On the basis of what has been discussed, teachers can do the following to make cooperative learning more effective.

1. *Be knowledgeable about the essential components of cooperative learning* to ensure that children do, in fact, work collaboratively in groups.
2. *Have a clear understanding of what is to be accomplished* and how the groups can meet these *expectations*. Ensure that students know these expectations through stated educational objectives.
3. *Introduce cooperative techniques gradually* so that pupils have opportunities to gain experience with each new technique.
4. *Explicitly teach collaborative and interpersonal skills*, emphasising to students the notion of *allowing ideas but not personalities to clash* in the process of consultation.
5. *Share resources, assist fellow colleagues to learn cooperative learning techniques* and provide mutual support, especially *in the same subject area*.
6. *Plan for "sponge" or enrichment activities* to fill time for individuals or groups who are more advanced in their work.
7. *Monitor, reflect and adjust* cooperative learning activities and groups according to the needs of the pupils and group dynamics.
8. *Create a caring community* where individual differences are respected irrespective of intellectual acumen, race or culture.

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