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Author(s) Maureen Ng and Christine Lee
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**USING COOPERATIVE LEARNING IN
SOCIAL STUDIES CLASSROOMS TO ADDRESS DIVERSITY**

Maureen Ng
&
Christine Lee

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Using Cooperative Learning in Social Studies Classrooms to address Diversity

**Maureen Ng
Christine Lee**

*National Institute of Education
Nanyang Technological University*

Abstract

This paper discusses two issues : (a) the implementation of cooperative learning in a heterogeneous primary classroom in Singapore and (b) a sociometric survey of friendship choices of the children before and after cooperative learning. The study was a pilot test using Kagan's cooperative learning structures in social studies lessons. Interviews with the children revealed positive responses to cooperative learning. Discipline and status problems are discussed. Sociometric data showed a rise in the proportion of children making cross-ethnic friendship choices after cooperative learning. The researchers believe that one of the strongest justifications for cooperative learning may come from the qualitative effects on pupil attitudes and values.

Introductory Remarks

Our interest in cooperative learning grew out of our work in training social studies teachers for primary classrooms. Our personal experiences using cooperative learning also indicate that this approach is clearly well received by a majority of the students. Its impact on student interaction and the climate of the class has been positive.

While cooperative learning strategies are supported by a body of theory and research, there has been no systematic attempt in Singapore to implement the strategies in social studies and measure their effects. Yet, cooperative learning has been specifically advocated for use in

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the revised social studies curriculum (CDIS, 1994). This reflects a wider trend worldwide, in which cooperative learning is being rapidly extended from elementary school to college level, for all subjects and for teaching "academically, linguistically and culturally diverse pupils" (Cohen, 1990).

In this paper, we shall share some findings of a pilot study in which cooperative learning was used in a primary social studies classroom. The pilot study enabled the researchers to gather information on various cooperative learning structures and clarify the general conditions required for the method to work. Information was gathered on its effects on classroom environment, self esteem, children's thoughts about cooperative learning and cross-ethnic friendships. This paper will report only the children's views of cooperative learning and cross-ethnic friendship choices. It will also discuss the potential and problems of using cooperative learning in teaching social studies in multi-ethnic classrooms.

Definition of Key Terms

Social studies is a subject which draws its content from various social science disciplines. In Singapore, it integrates history and geography and some elements of economics and sociology. An integral part of social studies is "citizenship education". Social studies educators have to be mindful of the need to foster pertinent values for our plural society. School and social studies curricular try to promote "non-culture-specific values" such as civic consciousness, cooperation and teamwork (CDIS, 1994) while simultaneously preserving the unique "ethnic identities and cultures" of the different communities.

Diversity will be discussed in terms of multi-ethnicity - the presence of pupils of different races and cultures in the class. When the class is comprised of pupils from different ethnic or cultural backgrounds, the social processes and relationships between the different groups assume a greater degree of importance for teachers. The multiethnic, multicultural class presents a far greater challenge than homogeneous classes. Confronted by this challenge, teachers may become more open to alternative methods of teaching and classroom management, provided that there is some prospect of developing positive inter-group relations and collaboration in the learning effort (In Slavin 1985, p255).

Cooperative learning may be broadly defined as "the use of small groups in which students work together to maximize their learning" (Johnson, Johnson & Holubec, 1983). Unlike conventional groupwork, three learning conditions must be met in cooperative learning : "working together", "common goal" and "individual accountability". The word cooperation can have different shades of meaning. In Cowie's (1994) definition, cooperation means "being fair" and "being trustworthy". It does not mean being "friendly" or "obedient" or "conforming". In her view, one does not cooperate at any cost - only when rules of "fairness and reciprocity" are operating within reasonable levels of tolerance.

The *structural approach* to cooperative learning is based on the systematic application of structures, or "content-free ways of organizing social interaction in the classroom". They usually involve a series of steps, with proscribed behaviours at each step. Examples include Jigsaw (Aronson et al), TGT (DeVries), STAD (Slavin), Learning Together (Johnson & Johnson), Think-Pair Share (Lyman) and Group Investigation (Sharan).

Race and Relationships in Children

The studies on inter-racial behaviour among children evolved out of the school desegregation policy in the US. These studies showed that children interacted primarily within own-race groups. The preference was stronger among ethnic majority than minority children and among girls rather than boys. Polarization by race also became more pronounced as the age of the children rose (especially between 12-14 years of age). Studies reported by Cowie & Smith (1994) point to the existence of prejudice, not just marginal preferences for one's own racial group.

In studies where children were asked to choose partners from photographs of different ethnic groups, Asian and White boys and girls showed a strong preference for the own-race own-sex photographs (Boulton & Smith, 1992). In another study by Radke, Sutherland & Rosenberg (1950) in which 7-13 year old children were asked to assign positive and negative traits to pictures of Black and White children, 80% of the White children had a more favourable view of their own racial group than the ethnic minority groups (Reported in Cowie & Smith, 1994).

Schofield's (1977, 1982) studies involved observations of boys and girls aged 13-14 years in unsupervised settings (eg cafeteria) and in their classrooms. The studies found that children clearly favoured same-sex and same-race companions. They interacted significantly more with peers of their own race than other races. Cross-race interactions tended to be more task-related whereas within-race interactions had a more social orientation. Boys had significantly more cross-race interactions than girls.

Cooperative Learning & Ethnic Relationships

Slavin's (1985) review covered 19 experimental studies of cooperative learning in desegregated elementary and secondary schools in the US. He concluded that cooperative learning has relatively consistent positive effects on intergroup relations, and on the achievement of minority and majority students. Williams (1977) also wrote that "The weight of the evidence is that the greater the opportunity for inter-ethnic contacts, the less the prejudice and the more frequent the development of cross-ethnic acceptance and friendship (In Ziegler, 1981).

Most of the investigations on intergroup relations used sociometric data (eg Who are your friends in this class?), peer ratings or behavioural observations. In Slavin's (1979) study, experimental students named an average of 2-4 friends outside their own race (37.9% of their friendship choices). In contrast, control students listed an average of less than one friend of another race (9.8% of their friendship choices). Other studies have found that cooperative learning promotes a more "prosocial orientation", "greater interpersonal attraction among heterogenous individuals", "greater ability to take the affective perspective of others" and "more altruism" (Johnson, Johnson & Maruyama, 1983; Sharan, 1979, 1980).

Studies directed at specific cooperative learning strategies have borne out the positive inter-group effects. This has been found to be so for STAD, TGT, TAI, Jigsaw, Learning Together and Group Investigation method. In a few studies that included follow-up measures of inter-group friendships several months after the end of the study, the students from the cooperative learning classes still named significantly more friends outside their own ethnic groups than control students.

Educators therefore have cause to advocate cooperative learning for multi-ethnic classes. The chief purpose is to promote cross-ethnic awareness and cultivate "mutual respect and understanding" among pupils of different races. At the same time, most educators will agree that fostering subgroup identity need not undermine the cohesion of the social order. Sharan, Amir & Ben-Ari asserted that "groups secure in their own sense of self and survival may be prepared to assume heightened responsibility for the fate and progress of the larger society" (In Slavin 1985, p 256).

Cooperative Learning Method & Theoretical Base

Cooperative learning strategies explicitly use the diversity of the multi-ethnic classroom to enhance intergroup relations and other outcomes. The groups in which students work are made up of 4-5 students of different races, sex and levels of achievement. Group composition should reflect the composition of the class as a whole. Cooperation between pupils is emphasized by interdependent tasks and group rewards, and by the teacher who tries to communicate a "We swim or sink together' attitude.

A fundamental assumption of cooperative learning is that people who help each other and jointly work toward a common goal will feel positively about one another. Underlying this is Allport's (1954) contact theory. Allport's work has been central to the development of current thinking regarding strategies to promote inter-racial contact.

It has been clearly indicated by research that desegregation in itself will not improve race relations. Although sharing the classroom may be a necessary condition, it is hardly a sufficient one for guaranteeing "direct and unmediated" contact. Allport has derived a set of principles for the fulfilment of improved inter-ethnic relationships : (a) equal status within the contact situation (b) shared goals (c) cooperative dependence in reaching the goals (d) support of authorities. The conditions outlined by Allport are met by cooperative learning - cooperation across ethnic lines, equal status roles for students of different races, contact across racial lines that permits students to learn from one another and the communication of teacher support for inter-racial interaction.

However, Cohen (1980) has argued that the condition of *equal status* may just not exist. This is because people have expectations and judgement of others that are coloured by pre-conceptions and biases - gender, age, race, religion or language. As such, people do in reality carry with them "expectation states" regarding minority and majority groups. These expectations may lead to "self-fulfilling prophesies" so that high status members will dominate in group tasks, whilst low status members may be relegated to a position of redundancy.

The Pilot Study

This was a pilot test of cooperative learning strategies in a real classroom. The study was conducted in 1993 in a neighbourhood school. Only one class was selected to be the treatment group ($n=39$). The control class ($n=38$) was picked randomly from the rest of the Primary 5 classes. Both were mixed-ability classes with a fairly proportionate ethnic representation - Chinese (80%) and Malay/Indian (20%). The treatment group was taught by the researcher (co-writer) who used cooperative learning methods for a period of 6 months (2 terms). Social studies curriculum time was 1 1/2 hours per week. The control class was taught by the regular school teacher using the traditional approach.

In the implementation of cooperative learning, the structural approach was adopted. Several structures were chosen : (a) Listen-Think-Pair-Share (b) Pairs check (c) Numbered Heads Together (d) Sequential Roundtable (e) Team Webbing. Each cooperative learning structure involves a series of steps which the teacher may use.

The pupils were assigned to heterogeneous teams of 6-8 children. The teams were balanced in the proportion of boys and girls, ethnic composition and high, middle and lower-performing children. Teams were formed at the start of a term and pupils stayed in the same team for the full term. Teambuilding activities were organized when the teams were first formed. During team activities, each team member was assigned a specific role eg encourager, checker or reporter. Roles were rotated to enable pupils to practise a variety of skills while being individually responsible for contributing to the group product.

Data Collection

The data collection was conducted at the start and end of the treatment period. Self Esteem (Coopersmith, 1981) and Classroom Climate (Fraser, Anderson & Walberg, 1982) were two variables that were measured, but these are not discussed in this paper.

Sociometric surveys were conducted with the treatment group at the start and conclusion of the treatment. In order to determine if there might be long-term effects on friendships, a final sociometric survey was conducted at the end of Primary 6 (after a 12-month lapse). In each survey, the pupils were asked to list *three* classmates whom they would most like to (a) go for recess with (b) have as their best friend (c) sit next to in class (d) have as a project partner.

Interviews with a sub-sample of children were conducted at the end of the treatment. The interviews were carried out with intact teams. Two teams were interviewed, one of which had been observed to work cohesively together, while the other team had not been as cohesive.

Children's Views of Cooperative Learning

The pupils in both groups responded positively when asked if they enjoyed cooperative learning. They generally preferred working in groups to working alone :

....rather enjoyable...when they let me talk...

very interesting (and) fun.

....because it's fun... everybody is doing it and
helping each other. It's very happy.

They also perceived benefits that would contribute to their learning :

....we can discuss some of the answers we don't
know ourselves... we can learn more things.

....it's a very useful way... it makes us remember everything.

....it gives us information... we can listen to other groups.

The main difficulties encountered were related firstly to differences in ideas, and secondly to problems of pupil behaviour :

....sometimes I've got one idea, they've got another idea, so we can't decide and we quarrel.

....they (the boys) always want to do by themselves... Some boys bully the girls. We don't dare talk. We want to say something, they say shut-up.

Particularly interesting were the conflict resolution methods which the children themselves devised :

....we play scissors, paper, stone.

....we give him signs ... if we put a pen here, he can talk; if we put on the book, he cannot talk.

Sociometric Data

Some "prejudice and exclusion" by the children on ethnic grounds was evident. This was so amongst the ethnic majority boys and girls - a high proportion (> 80%) chose own-race recess partners and best friends at the start of the study (Tables 1a and 3a). Among the minority children, the proportion who named exclusively own-race recess partners and best friends was very much lower - 0% for the boys; 60% for the girls. This pattern fits the findings of UK, New Zealand and African studies that children, particularly the ethnic majority, interact primarily within own-race groups (Cowie & Smith, 1994).

**FIGURES 1-4 : COMPARISON OF PROPORTIONS OF CHILDREN
CHOOSING AT LEAST ONE CROSS-RACE FRIEND, 1993 - 94**

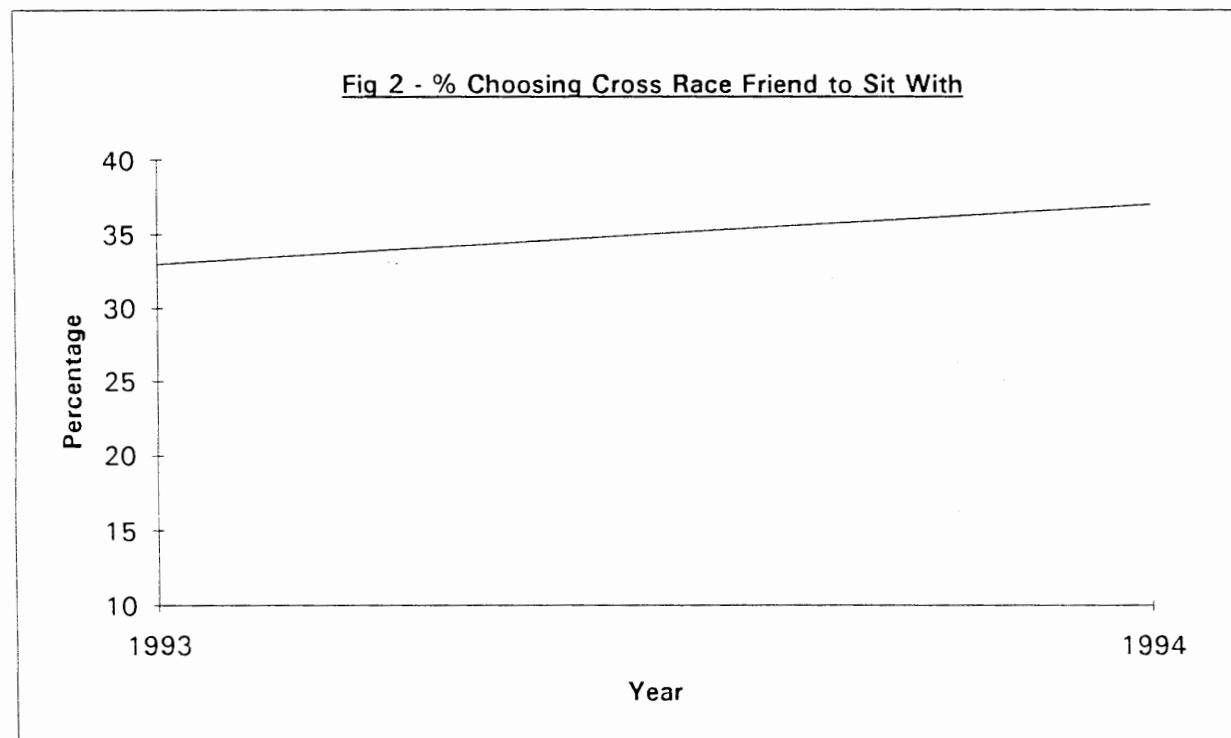
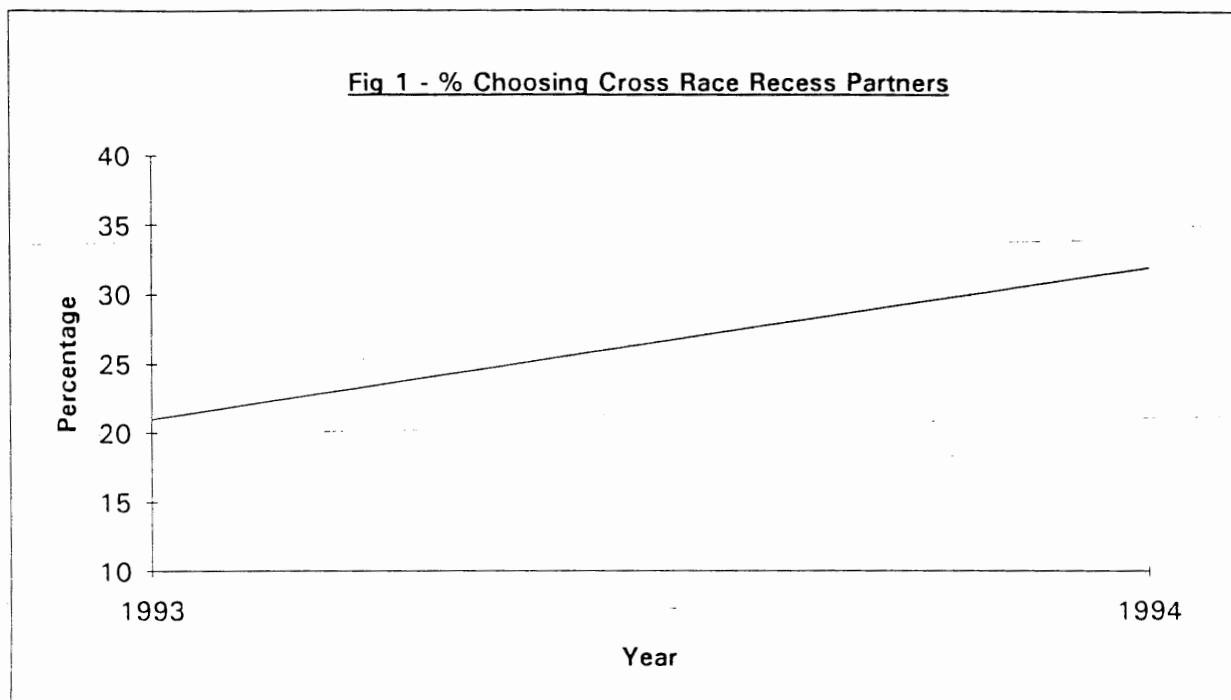


Fig 3 - % Choosing Cross Race Best Friend

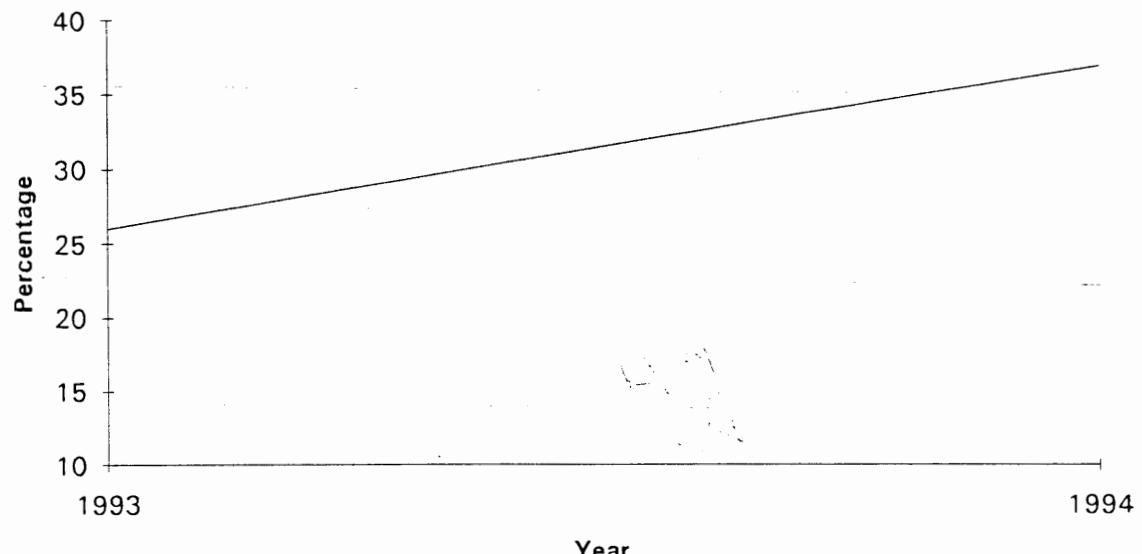
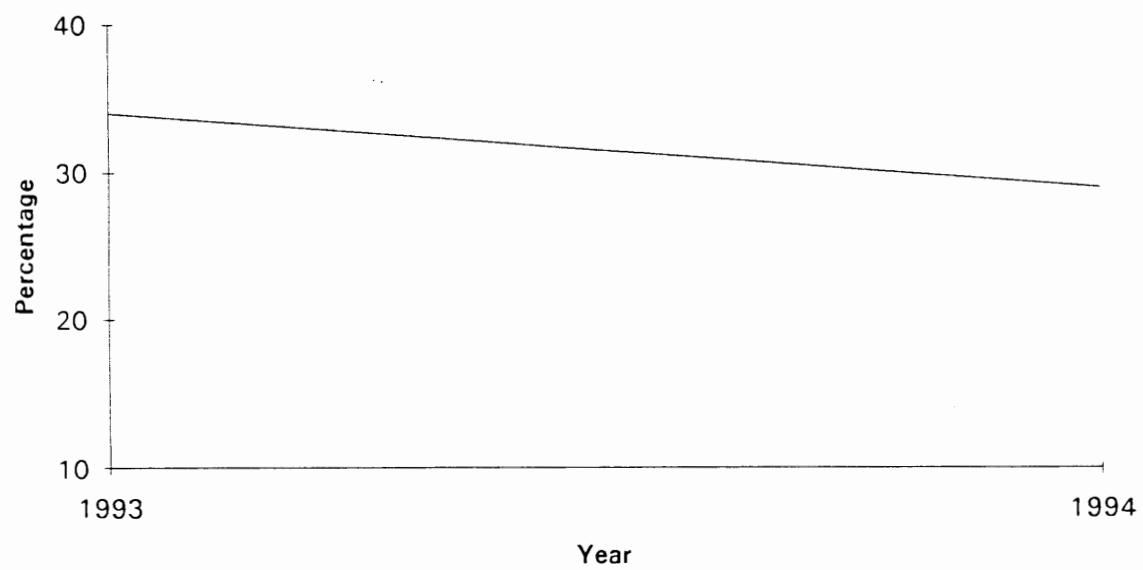


Fig 4 - % Choosing Cross Race Project Partner



With reference to Figs 1-3, the rise in cross-ethnic friendship choices from 1993 (start of the study) to 1994 (when cooperative learning ended) indicates that some of the children found new friends from other ethnic groups. Fig 4 was an unexpected outcome - a decline in cross-ethnic project partner choices. The reason here may be that in selecting project partners, the children looked for *task-related* criteria rather than friendship :

Qualities mentioned for recess partners	Qualities mentioned for best friends	Qualities mentioned for sitting with	Qualities mentioned for Project partners
- friendly	- friendly	- friendly	- clever
- fun	- kind	- helpful	- smart
- funny	- helpful	- clever	- hardworking
- playful	- I like them	- good friends	- good in thinking
- interesting	- they like me	- can work together	- have many ideas
- clever	- have fun together	- can talk together	- can draw well
- can run fast	- do things together	- good in their work	- they can help me
- can think what games to play	- same hobbies	- they can teach me	- share work equally
- they like the same games	- can be trusted	- not so talkative	- best friends
	- they understand my feelings		

Implications for Teaching

Cooperative learning presents an exciting instructional challenge to teachers of ethnically or culturally diverse classes. By reorganizing the class into heterogeneous small groups, the children are brought together *outside* friendship groups. This feature can reduce prejudice, foster friendship across gender and race and help integrate neglected or rejected children. Task assignment is also different as the pupils now have to collaborate with their group members, communicate and share information to achieve a common goal.

In our pilot study, we could see dramatic improvements in pupil participation and enjoyment of social studies lessons. The children reported that they preferred working cooperatively to working individually because the cooperative learning activities were "fun and interesting" and they benefitted from "sharing ideas" and peer help.

Teachers too enjoyed using cooperative learning. Cowie & Smith (1994) similarly noted that some of their teachers, after initial reservations, became convinced of the usefulness of the method. The cooperative learning structures provide frameworks which help the teacher to organise orderly group work. The teacher may select from a variety of structures, each for distinct learning outcomes, and the structures may be adapted to a variety of content areas. Ziegler (1981) concluded that implementing cooperative learning is both effective and cheap - costing less than rewriting curricular and changing textbooks.

One of the strongest justifications for cooperative learning may come from the qualitative effects on pupil attitudes and values. While the achievement effects may not be dramatically better, the sociological impact (eg on class cohesion, friction and friendships) can be far greater. The sociometric survey showed that after cooperative learning, the proportion of pupils naming cross-race friends improved markedly. The jump in proportion may have been due to the small sample used. In absolute numbers, 4 more pupils out of the class of 38 children named cross-race friends after the cooperative learning intervention.

Problems Encountered

(i) Discipline

Interviews with the pupils indicate that bickering among team members was a common problem during group work. Teachers should expect conflicts to occur when heterogeneous pupils are made to work closely for joint rewards. Such conflicts should however not be seen as a failure of cooperative learning. Rather, they provide a setting for tackling these problems. Social skills can be taught directly. Conflicts should also not be left unsettled and teachers should engage children in methods of conflict resolution and discussions of their effectiveness in cooperating.

Cooperative learning does not eliminate discipline problems. However, Phoenix (1992) observed that cooperative learning decreased the total incidences of negative behaviours in the classroom, although the declines were not dramatic. He identified two categories of problem behaviours (a) off-task and non-compliant (b) bothering others and aggression. The cooperative learning classes demonstrated fewer "off-task" behaviours compared to the comparison classes, but higher incidence of "non-compliant" and "aggressive" behaviours.

(ii) Status problems

Unlike whole-class teaching, the problems of low-performing children are brought to the open by cooperative learning. Since cooperative learning advocates equal status group interaction, every child is given a role to play and must contribute towards the group's achievement. This condition may lead to several difficulties for the lower-achieving children. First, such children may be prevented by their group members from participating. Second, they may not be able to achieve the expected level of mastery and suffer consequent peer rejection.

However, research has shown that cooperative learning can improve the performance of low-ability and minority children. By letting the minority children work in groups with Anglo children, the minorities will be able to "benefit from the knowledge of the academically competent Anglos" and "gain school-related skills and motivations" (Lucker et al 1976).

Concluding Remarks

The importance of cooperation as a life skill is widely accepted. We believe strongly that such skills have to be taught in the school. Cooperative learning has been proven to be a feasible and effective method for promoting such learning. This paper should provide indicators to interested teachers on some important considerations in using cooperative learning. It should also help researchers to identify key areas for focus in future studies of cooperative learning in Singapore schools.

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TABLES 1-4 : CHOICES OF FRIENDS BY ETHNIC GROUP AND GENDER

Table 3(A) - Pupils Choice of Best Friends 1993			
	No.(%) Choosing Within Race	No.(%) Choosing Other Race	Total
Chinese Boys	13 (86%)	2 (23%)	15
Chinese Girls	13 (81%)	3 (19%)	16
Malay Boys	0 (0%)	3 (100%)	3
Malay Girls	3 (60%)	2 (40%)	5
Total	29 (74%)	10 (26%)	39

Table 3(B) - Pupils Choice of Best Friends 1994			
	No.(%) Choosing Within Race	No.(%) Choosing Other Race	Total
Chinese Boys	9 (64%)	5 (36%)	14
Chinese Girls	12 (75%)	4 (25%)	16
Malay Boys	0 (0%)	3 (100%)	3
Malay Girls	3 (60%)	2 (40%)	5
Total	24 (63%)	14 (37%)	38

Table 4(A) - Pupils Choice of Project Partners 1993			
	No.(%) Choosing Within Race	No.(%) Choosing Other Race	Total
Chinese Boys	13 (80%)	2 (14%)	15
Chinese Girls	11 (68%)	5 (32%)	16
Malay Boys	0 (0%)	3 (100%)	3
Malay Girls	2 (40%)	3 (60%)	5
Total	26 (66%)	13 (34%)	39

Table 4(B) - Pupils Choice of Project Partners 1994			
	No.(%) Choosing Within Race	No.(%) Choosing Other Race	Total
Chinese Boys	12 (85%)	2 (15%)	14
Chinese Girls	12 (75%)	4 (25%)	16
Malay Boys	0 (0%)	3 (100%)	3
Malay Girls	3 (60%)	2 (40%)	5
Total	27 (71%)	11 (29%)	38