CHAPTER I

INTRODUCTION

In education, the most important learning outcome is usually measured by the students' academic achievement. However, there are many other learning outcomes such as higher order thinking skills, or pro-social behaviour (Cohen, 1994). In addition, there are many different levels of analysing effectiveness of the aims and the objectives of education. Creemers (1994) suggested four different levels: contextual, school, classroom and student. He focused mainly on the characteristics of effective education at classroom level. He defined effectiveness as closely relating to the outcomes of education that are determined by the learning processes of students, so it is necessary to look for components and characteristics of components in the classroom situation that can be related to these learning processes. The three main components at classroom level are curriculum, grouping procedures, and teacher behaviour. Of the three components, the most difficult to control is teacher behaviour (Creemers, 1994).

The main focus of this research is to study cooperative group learning as one type of grouping procedures in the classroom that the teacher can use. It will investigate into the possible learning outcomes of cooperative groups including students' academic achievement on their test scores in Sociology. This study attempts to discover some of the main determinants of effective cooperative group. The main objective is towards describing a profile of effective cooperative group learning. This research will study the cooperative group learning behaviour at the individual level and at the group level. Students' attitude and perceived behavioural control of
cooperative group learning is at the individual level while subjective group norms are at the small group level. This research hopes to understand how individuals make sense of group work, that is, to understand the social construction of cooperative group learning. A combination of factors will be investigated such as students' attitude, subjective group norms and perceived behavioural control (Ajzen and Fishbein, 1980).

![Diagram of educational effectiveness model]

Figure 1. The basic model of educational effectiveness adapted and revised from Creemers (1994).

There are three learning strategies that are used commonly in the classroom.

They are competitive, individualistic and cooperative models of structuring student
interaction in the classroom. In a competitive model, students work against each other. While in an individualistic model, students work alone with limited interaction in achieving their individual goals. However, in a cooperative model, student work together to achieve common goals while being held individually accountable for the knowledge/skills being taught (Johnson, Johnson, & Holubec, 1991). Usually a combination of any of the three models can be used in structuring a lesson. According to Johnson and Johnson (1987), cooperative learning model has been neglected in the management of classroom learning relative to competitive and individualistic learning models.

Cooperative learning model refers to the use of classroom technique in which students work on learning activities in small groups and receive rewards or recognition based on their group’s performance. Classroom instructional technology can be described as a combination of three essential elements. They are task structure, reward structure and authority structure. The task structure is the mix of activities that make up the learning day (Slavin, 1980).

Cohen (1994) defined cooperative learning as students working together in a group small enough that everyone can participate on a collective task that has been clearly assigned. Students are expected to carry out their task without direct and immediate supervision of the teacher. This definition encompasses collaborative learning, cooperative learning, and group work.

**Definition of Cooperation**

The ‘word’ cooperation can have many shades of meaning and is subject to misinterpretation. According to Cowie, Smith, Boulton, and Laver (1994) cooperation
means 'being fair' and 'being trustworthy'. It does not mean 'being friendly' or 'being unselfish'; and it does not mean 'being obedient' or 'being conformist'. Cooperation means working together for a common goal. To cooperate implies a certain degree of fairness and reciprocity in how the work is done. There is little merit in being 'unselfish' or 'altruistic' as a general principle of behaviour. Axelrod and Hamilton (1981) as quoted in Cowie et al. (1994) found that purely unselfish behaviour is unlikely to be widespread. They used 'games theory' to model the effects of different behaviour strategies in situations involving potential conflict of interest. They found that neither a 'purely unselfish' strategy, nor a 'purely selfish' strategy, was likely to be best. The optimal strategy was labeled 'Tit for Tat'. 'Tit for Tat' strategy had three important propositions. At the start you are prepared to trust and work with your partner. However, if your partner lets you down (cheats, does not reciprocate) then you will stop trusting them. Finally, if your partner who has cheated then 'reforms' and is prepared to work with you again, you too will resume working with them. 'Tit for Tat' embodies fairness and reciprocity. It assumes trust in working together unless disillusioned. It also assumes the partner is prepared to forgive but only when forgiveness is justified. Cowie et al., (1994) felt that 'Tit for Tat' is a good model of what one can realistically expect from children in cooperative behaviour. Cooperation does not mean trust or unselfishness at any cost. It only means trust when rules of fairness and reciprocity are operating within reasonable levels of tolerance. Therefore, being 'cooperative' is an active state of mind that does not avoid conflict (Cowie et al, 1994).
Definition of Group

As quoted in Shaw (1976), a group may be defined in terms of one or more of the following characteristics: perception and cognition of group members (Bales, 1950); motivation and need satisfaction (Bass, 1960); group goals (Mills, 1967); group organisation (Sherif & Sherif, 1956); interdependency of group members (Lewin, 1951) and group interaction (Bonner, 1959). Shaw (1976) defined a small group as having twenty or fewer members, although in most cases groups may have five or fewer members.

Are Groups Real?

Some interpretivist sociologists have argued that the concept of group is a mere analogy, an abstraction that we use to account for collective individual behaviour. Allport (1924) argued that only individuals are real; groups are no more than sets of values, ideas, thoughts, habits, etc., that exists simultaneously in the minds of individuals in collectivities. In short, groups exists only in the minds of individuals (as quoted in Shaw, 1976). However, the mind is not transparent and this makes it impossible to know the reality of how individuals in the groups perceive themselves.

However, structural sociologists like Durkheim (1989) had argued strongly that groups are entities and should be treated like other unitary objects in our environment. Structuralists believe that group phenomena cannot be explained in psychological terms. Therefore valid explanation of group processes must be at the level of the group (as quoted in Shaw, 1976). In consensus, Luft (1984) defines a group as:
a living system, self-regulating through shared perception and interaction, sensing and feedback, and through interchange with the environment. Each group has unique wholeness qualities that become patterned by way of members' thinking, feeling, and communicating, into structured subsystems. The group finds some way to maintain balance while moving through progressive changes, creating its own guidelines and rules, and seeking its own goals through recurring cycles of interdependent behavior. (p.2)

This definition asserts that a group is a living entity and cannot be explained by individual experience. Luft's definition suggests that a group may be as real as an individual, since an individual could readily be defined in a similar way.

Campbell (1958) coined the term "entitativity" to refer to the degree of having real existence. It is assumed that objects or groups may vary in degree of realness, or at least in the degree to which they are perceived as real. Therefore, a question arises concerning the factors determining the perception on entitativity (quoted in Shaw, 1976). Le Bon (1895) warned that groups are very real and potentially dangerous. He proposed that a group could take over the minds of its members and, in some cases, may cause individuals to behave savagely. In recent times, violent group attacks on innocent strangers have caused much public outcry and the term 'w 'w 'w yilding' has been applied to such incidents. (Wheelan, 1994) Such negative synergy of group or crowd behaviour should be understood and redirected into more positive group synergy. The strong negative force of group mind indicates the existence of how real a group can
be. Hopefully with further understanding of group behaviour especially in the learning process, the strong force of group behaviour can be better utilised.

Positivist sociologists like Durkheim believe in the external observable facts of the social world at the group level of analysis. While the phenomenologists believe knowledge of the world lie at the individual level of analysis. However, the ontology of knowing how group learning works will probably lie at the realist level of analysis that is trying to discover the underlying causes of group dynamics or cohesiveness of group learning. Realists believe that it is important to discover the observable and the hidden meaning to the group behaviour (Cuff, Sharrock and Francis, 1994). This study attempts to discover the students’ affective and behavioural beliefs about the cooperative group learning from a holistic structural perspective as well as discovering the hidden and observable meaning of group interaction for the individual student.

**Definition of Learning**

Gregory A. Kimble (1961) as quoted in Hergenhahn and Olson (1993) defined learning as a relatively permanent change in behavioural potentially that occurs as a result in reinforced practice. Firstly, learning is shown by a change in observable behaviour. Secondly, the change is relatively permanent. Thirdly, the change of behaviour need not occur immediately but as behaviour potentiality. Fourthly, the change in behaviour results from experience or practice. Fifthly, the experience or practice must be reinforced, that is, only those responses that lead to reinforcement will be learned. Rewards and reinforcements should not be used interchangeably as in Pavlovian and Skinnerian researches. Hergenhahn and Olson(1993) defined learning
as a relatively permanent change in behaviour or in behavioural potentiality that results from experience and cannot be attributed to temporal body states such as those induced by illness, fatigue, or drugs. Hergenhahn and Olson (1993) believe that their modified definition is more neutral on the matter of reinforcement, thereby making it more widely accepted.

Definition of Cooperative Group Learning

In this study, cooperative group learning refers to a permanent small group comprising of three to six students participating on assigned group tasks. The focus here is mainly on cooperation in completing group tasks. Cooperation means working together towards a common goal based on fairness and reciprocity in interaction. The common goal in cooperative group learning is the successful completion of assigned collective tasks.

Significance of Study

In many of the cooperative group studies, there seems to be a lack of theory strong enough to tie in all the various factors that influence group learning. Without any theory to provide a perspective to all those factors studied, it is impossible to gain a full understanding, nor the ability to control cooperative group learning to their ends, and lastly the impossibility of predicting their outcomes. Therefore, this research attempts to apply the Theory of Planned Behaviour that was formulated from the Theory of Reasoned Action to provide a perspective of looking at any group behaviour. According to Ajzen and Fishbein (1980), there is a causal chain linking beliefs to behaviour. On the basis of different experiences, people may form different behavioural beliefs and different normative beliefs about group behaviour. These
beliefs in turn determine attitudes and subjective norms that subsequently determine intention and the corresponding behaviour. Ajzen added another factor to predict behavioural intention that is perceived behavioural control that may directly or indirectly affect behaviour too. An understanding of the behaviour can be gained by tracing its determinants back to the underlying beliefs. Behaviour of individuals can be influence by changing a sufficient number of these beliefs. Knowledge of factors that makes an effective group learning may help teachers, trainers or facilitators to enhance group learning and avoid factors that are deterrent to successful group work.

An understanding of a qualitative profile of students in cooperative group work may enable teachers to create task structure that are compatible with individual differences. Slavin (1980) has lamented the lack of a qualitative study in cooperative group work. Therefore, a qualitative study is needed to study about when they do so-for which kinds of students, under what conditions, in which subjects and for which techniques or components of techniques are positively likely to be observed (Slavin, 1980).

The findings of this study will describe how cooperative group learning can be used in tutorial classes in qualitative subjects like Sociology. Introducing cooperative learning in the class require commitment and involvement from the teachers and students. In addition, many adjustments need to be made from continuous feedback from the students to make cooperative learning an effective management tool for the teacher. This study will describe the difficulties faced in implementing cooperative learning technique and the barriers to an active learning technique. It may help teachers, students, trainers and facilitators to be aware of the pitfalls and the amount
of commitment needed in implementing cooperative group learning. At the same time the rewards for an in-depth understanding of an effective cooperative group learning can enhance the quality of classroom management. According to Auguste Comte, who coined the word 'Sociology', the aim of studying society was 'to know, to control and therefore to predict' events, behaviour or phenomena in human grouped life. Therefore, this research aims to know how cooperative group learning works and the determinants of effective group learning. This knowledge may help in the control of effective cooperative group learning and predict the learning outcomes.

Limitations of Study

Cooperative learning as a teaching method may vary in its effect on learning outcomes when applied in a different educational setting. Prior research has established that instructional setting may affect student learning outcomes (Howe & Disinger, 1988) and test scores (Kleinfeld, 1991) as quoted in Jacobs et al., 1996). This study is only conducted in a private educational college and therefore may not discover extraneous variable like different educational setting.

One problem that is particularly serious in social studies is that unless the teaching content is very explicitly structured, it is difficult to make certain that what is taught corresponds to what is measured. Students in cooperative social studies classes may be learning effective ways to approach high level material that will show up on a posttest, but their learning of the facts may not correspond enough to the content of the posttest to show a difference (Slavin, 1980).

In this research, the teaching content is explicitly structured for both the cooperative and non-cooperative groups even though there are two different teachers
teaching the course. The same tutor who has knowledge of cooperative group learning taught all the cooperative tutorial classes. The syllabus for the external examination by the University of London had been explicitly stated.

Another extraneous variable in this study is teacher behaviour. The teachers teaching the cooperative group learning and the non-cooperative group are not the same. Therefore, the teacher behaviour in the classroom can only be standardised by the content of syllabus taught. Both teachers have to teach the same number of topics required in the syllabus. It is impossible to match any two teachers behaviour in the classroom. Fortunately, the focus of this study is on structuring student behaviour and task structure in the classroom.

Fishbein and Ajzen (1980) defined attitude as a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. Although the definition is quiet useful and attractive, one should not accept the existence of attitudes too easily. The common practice of adding up responses to get an estimate of an attitude is a very questionable procedure since incomparable scores are often combined in an index. The problems of measuring the evaluative aspect of attitudes are complex and difficult to determine the real cause. They can certainly lead to a lot of misinterpretation of data. The solution of the problems could lie in a more careful measurement and in the analysis of less aggregated variables. (Krebs and Schmidt, 1993) This is where a qualitative study of cooperative group will be able to provide a more valid reality of group learning. In-depth focus group interviews and individual interviews over time will provide a more dynamic picture of the meaning that members perceive of their group and its effectiveness. A triangulation of the
many available sociological methods are used as tools to get at the real meaning of the social construction of cooperative group dynamics.

Research Questions

This is a qualitative research study aimed at identifying the profile of effective cooperative group learning in a private college.

1. What are the determinants of effective cooperative group learning?

2. Is there any improvement in the academic achievement test scores of students during the implementation of cooperative group learning?

3. Besides academic achievement outcome, what other possible learning outcomes are achieved from cooperative group learning?

4. What is the profile of effective cooperative group learning?