

# THE EFFECTIVENESS OF USING COOPERATIVE LEARNING IN TEACHING READING COMPREHENSION

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## ABSTRACT

*Many Malaysian primary school pupils have problems in understanding English texts that could be impacting their English achievement. This study is to ascertain the effectiveness of using cooperative learning in teaching reading comprehension. The sample comprised fifty-eight year six pupils who were chosen randomly from a population of eighty-seven. T-test results indicated that the experimental group (cooperative learning method) made gains in post-test 1 and post-test 2 for both reading comprehension score and overall English score but not for the control group (direct instruction method). The result of this study reveal that cooperative learning method brings a positive effect on pupil's reading comprehension ability. This study is beneficial for teachers of English and policy maker of school in incorporating cooperative learning in school system. Future research should gear toward examining teachers and administrators' perceptions in order to improve the implementation of CL method in school system.*

**KEYWORDS:** cooperative learning, reading, comprehension, English

## 1.0 INTRODUCTION

Reading is fundamental in today's society. Many adults still cannot read well enough to understand the instruction on a medicine bottle (Lyall, 2005). In the case of Malaysia, reading is not a popular activity. Malaysian National Library report (2012) states that Malaysian people read only two to five books a year on average. This may be because people in Malaysia cannot read well. Nuttal (1996) state that people do not read much because they are slow readers.

Malaysian Education Ministry has introduced many programmes to develop the reading skills among students in school. In 1976, it launched English Language Reading Programme (ELRP). By 1983, 200 public schools were provided with the 'Reading Lab'. Then an extensive reading campaign was held before the 'Moving Library' was introduced in 1988. Another major effort by the Education Ministry was the launching of the 'Class Reading Programme' in 1990. However, all these effort is not sufficient (Chua et. al, 2008).

Reading comprehension plays an important part in determining the results of the English subject. There are 10 comprehension questions out of 40 questions asked in the paper one. Thus reading comprehension if taught properly can surely increase the percentage of pupils who pass and scored high marks in the UPSR English exam . However, in Tangkak district, there was a constant decrease of 4.1 % each year in UPSR exam result for English for the year 2008, 2009 and 2010 (Pejabat Pelajaran Daerah Muar, 2011).

One method that can be used to help improve the skills and performance required in reading is 'Cooperative learning' (CL). This CL method is said to be better compared to the traditional direct instruction method as often used by the teacher in the classroom. Many educators in the era of computer and technology have recognized CL as a beneficial teaching technique for different subjects. Kagen (1995) and Kessler (1992) state that CL is a well-known strategy among researchers and practitioners that promotes the cognitive and linguistic improvement of learners of English as a Second Language. Despite many research of CL were carried out at secondary and tertiary level, CL is also suitable for any level of students (Slavin (1995).

The traditional way of teaching has its drawback. , Teachers always dominate the whole class and is regarded as a unique authority, which limits the students' chances to participate in real communications in the classroom (Wenjing, 2011). This statement is also shared by Fauziah (2011) who states that. this particular way of teaching limits the pupils from developing their skills and ability.

On the other hand, CL is a method of instruction whereby students are grouped in small learning teams working cooperatively with each other to solve problem, or to perform task instructed by the teacher. This is the way that pupils should be taught, in a group not as individual, as Johnson and Johnson (1999) assert that CL is a successful teaching method in which small teams, each with students of different levels of ability, use variety of learning styles to improve their understanding of a subject. Cohen (1986) also states that CL is able to increase the motivation of second language learners.

## **1.1 Objectives of the Study**

The objectives of the study are:

1. To analyze the difference in the comprehension score between pupils taught using cooperative learning and direct instruction.
2. To analyze the difference in the overall English score between pupils taught using cooperative learning and direct instruction.

## **1.2 Research Questions**

In this study, two main research questions are addressed as follows:

1. Is there a difference in the comprehension score between pupils taught using cooperative learning and direct instruction?
2. Is there a difference in the overall English score between pupils taught using cooperative learning and direct instruction?

## **2.0 LITERATURE REVIEW**

### **2.1 Cooperative Learning (CL)**

The word cooperative can be defined as involving or doing something together or work together with others towards a shared aim and learning is defined as the process of gaining knowledge or skills by studying from experience or being taught (Slavin, 1995). In this paper, CL will refer to Students Team Achievement Division or STAD method.

CL method takes advantage of specific kinds of human interaction because everyone in the classroom becomes involved in the learning process. According to Yager, Johnson and Johnson (1985), cooperative learning succeeds because it allows children to explain material to each other, to listen to each other's explanations, and to arrive at joint understandings of what has been shared. In a school setting, CL occurs when students work together in a group to learn about a topic or a subject presented by the teacher. One of the most important purposes of CL is to improve students' learning in the classroom. Klingner, Vaughn & Schumm (1998) regard CL as students working together in small groups. On the same note, Johnson Smith (2007) defines CL as instructional uses of small groups so that students work together to maximize their own and each other's' learning. In the early grades, most of these tasks involve learning to read. Therefore, within the cooperative group, students have the opportunity to learn from each other, share their ideas, and decide upon strategies for solving learning tasks or unanimous decision making (Mohammed, 2011)

### **2.2 Cooperative Learning and Its Elements**

According to Kagen (1995), there are four basic principles to be explicitly structured in each lesson for CL; positive interdependence, individual accountability, equal participation and simultaneous interaction.

#### *Positive Interdependence*

Positive interdependence means that a gain for one student is associated with gains for the other students. Students should be guided to understand the success of every team member depends upon the success of other member and if one fails, they all do (Kagen, 1995). In using CL each member must know that they need to sink or swim together. This positive interdependence make all group members to work together as hard as they can to accomplish something beyond individual success. When the positive interdependence is understood, it highlights the fact that each group member's efforts are required and indispensable for group success and each group member has a unique contribution to make to the joint effort because of his or her recourses or role and task responsibilities

#### *Equal Participation*

Equal participation is self-explanatory and refers to the fact that no students can dominate a group, socially or academically and that no student should be allowed to 'hitch-hike' on the work of other group members. Kagen (1995) asserts that two techniques are essential to ensure equal participation in a group; turn allocation and division of labour.. The former means students must take turns to speak and to contribute in the discussion and the latter means each group member is assigned a specific role to play in a group.

### *Individual Accountability*

The discipline of using cooperative group includes structuring group goal and individual accountability. Group accountability exists when the overall performance of the group is assessed and the result is given to all group members to compare against a standard performance. Each member in the group is held responsible for contributing his or her other part to group's success.

### *Simultaneous Interaction*

Another important aspect in using cooperative group is each group member should meet face to face and work together to complete task and promote each other's success. When every individual in the group interacts and promotes each other's work or success, group members build academic and personal support system for each member. Three steps are involved in promoting interaction among group members; to schedule time for the groups to meet, highlight the positive interdependence that requires members to work together to achieve the group goals and to encourage active interaction among group members.

## **2.3 Related Research on Cooperative Learning**

Over the years several studies have been conducted to examine the effect of cooperative learning on students' progress in learning. In Malaysia, research conducted on the effectiveness of using CL in teaching reading comprehension are very limited. Most of the research conducted is based on the secondary schools and university settings. This trend of research may be due to the level of maturity of the samples.

Stevens (1987) conducts a study to evaluate the impact of the full Cooperative Integrated Reading and Composition (CIRC) program on students' reading comprehension over a 12 week period. The findings yield that the effect of the CIRC program on students' achievement is quite positive. The CIRC students perform significantly better, averaging gains of almost two thirds of a grade equivalent more than control students (Slavin and Madden, 1999).

Davidson (1995) compares the effectiveness of cooperative learning in small groups as opposed to the whole classroom when using directed reading-thinking activities during reading. This study lasts 8 weeks for two sessions involving 53 6th graders in New York. The stories used in their study are derived from the same level of difficulties. After each story is completed, a reading comprehension test is given to each child. Children in cooperative groups read stories on their own and provide comments on these stories. The next day children in each cooperative group meet together to discuss the story and students work together for a duration of four weeks. Students continue to read, using the directed reading-thinking activity strategy and when the story is completed, they read and answer questions about the story independently. After four weeks, another reading comprehension test is given to students. The results indicate that the children in the 32 cooperative reading groups score higher on their reading comprehension test than when they use the Directed Reading Thinking Activity (DRTA).

Tang (2000) analyzes the concept mapping skill to teach ESL reading in the classroom of 12 ESL students from India, South Korea, Hong Kong, Croatia and Taiwan at a secondary

school in Canada. The observation of ESL students' CL activities in an eight-week period indicates that teaching reading by using the concept-mapping strategy could improve reading comprehension and the communication skills as the students learn how to negotiate meaning with their partners and among themselves.

Somapee (2002) compares critical thinking skills of students who study Business at Chiangrai Commercial School using the CL method with those students using the traditional group work method and surveyed the opinions of students toward the CL method. A pre-test is used to assign students so both have the same level of critical thinking skills. During the eight weeks of teaching, pre-tests and post-tests are given to students at the beginning and at the end of each unit respectively. After the implementation, the pre-test is assigned for them to take as the post-test. Then, two sets of average scores taken from the pre-test and post-test are compared by t-test. A questionnaire is then given to the experimental group to assess their opinion about CL. The results of the test reveal that critical thinking skills of students in the experimental group are higher than those in the control group. The post-test scores of students who are taught through the cooperative learning method are remarkably higher than the post-test scores of students who are taught through the traditional group work method at  $p < .05$  level. Moreover, the post-test scores of the experimental group are higher than those of the control group as the statistical difference is significant at  $p < .05$  level. The results of the questionnaire show that students' opinions towards the CL are moderately positive.

Seetape (2003) analyzes the effects of CL on English reading achievement and the students' behaviour towards this learning method used in the English classroom. Students are taught for eight periods, each of which lasts fifty minutes. The instruments are English reading achievement test, CL behavioural observation sheet, and CL lesson plans. The results of the study show that most students display very good behaviour in cooperating in their tasks. Their cooperative behaviour has increasingly developed. Some elements of poor behaviour decrease by 14.29 per cent.

Rosniah (2007) analyzes the impact of CL on undergraduate students and finds that there are significant difference of marks between those who like to learn individually and those who choose to study in group. Students who choose to study in group score high marks as compared to students who study individually.

A meta-analysis of cooperative learning methods indicates that by and large 1000 studies have been conducted on cooperative learning in the past but only a few were done in South East Asia (Zaheer, 2010). Based upon this it is very suitable if a research on the effectiveness of using CL in teaching reading for primary school pupils is conducted to see if the implementation of CL is suitable for our Malaysian culture.

### **3.0 METHODOLOGY**

#### **3.1 Sample and Procedure**

The sample consists of fifty eight year six pupils from three classes, undergoing extra classes at a rural primary school in Tangkak. The name list for the three classes were combined and then randomly divided into three stratified groups according to their English achievement.

A pre-test was conducted before the treatments were given to both experiment and control groups. Then, the experimental group was given treatment with a cooperative learning and

the control group with a direct instruction method for three weeks before post-test 1 was given to both groups. After post-test 1, both experimental and control had been given another three weeks of treatments with the same teaching method for each group before post-test 2 was given again for both groups.

#### 4.0 FINDINGS AND DISCUSSION

The findings report results on the demographic data, reading comprehension score and overall English score.

Table 1 provides the demographic data of the fifty-eight pupils involved in the study. Most of the pupils' parents are farmers (62%) and housewife (84.5%).

The mean score for experimental group in post-test 1 and post-test 2 for reading comprehension score was significantly higher compared to the pre-test but not for the control group as shown in table 2. The mean score for experimental group was also significantly high in post-test 1 and post-test 2 compared to the pre-test but not for the control group for an overall English score as shown in table 3.

Table 1: Demographic data of pupils

Variable	Frequency	Percent
<u>Gender</u>		
Male	23	39.7
Female	35	60.3
<u>Father's Occupation</u>		
Private agencies	4	6.9
Government	5	8.6
Self-employed	13	22.4
Farmer	36	62
<u>Mother's occupation</u>		
Private agencies	-	0
Government	2	3.4
Self-employed	3	5.2
Farmer	4	6.9
Housewife	49	84.5
<u>Transport to school</u>		
Car	2	3.5
Motorcycle	34	58.6
Bicycle	17	29.3
Walk to school	5	8.6

Table 2: The mean score for experimental and control group for pre-test, post-test 1 and post-test 2 for reading comprehension score.

	Pre-test	Post-test 1	Post-test 2
Experimental Group	6.90	8.72	10.52
Control Group	5.03	3.14	3.07

P-value is at (.000) smaller than chosen alpha level (0.05)

Table 3: The mean score for experimental and control group for pre-test, post-test 1 and post-test 2 for overall English score.

	Pre-test	Post-test 1	Post-test 2
Experimental Group	64.45	68.10	73.45
Control Group	54.38	52.52	51.62

P-value is at (.000) smaller than chosen alpha level (0.05)

The results of the study show that the experimental groups make gains in post-test 1 and post-test 2 for both reading comprehension score and overall English score compared to the control group. The statistically significant difference in achievement gained on experimental group indicates that the use of the treatment has an impact on the scores and CL method clearly boosts the pupils' achievement.

Many researchers find the use of cooperative learning method produces gains in academic achievement. Some researchers report similar findings in which the use of CL method increases students' achievement measurably more than traditional strategies (Riley and Anderson, 2006; Slavin & Madden, 1999; Stevens 1987). Adams (2000), Brown (2002), and Siegel (2005) also report findings in which the use of CL method shows an increase in academic achievement.

Experts such as Bilgin (2006), Johnson (1978), and Stevens (1987) also report findings in

which gains in academic achievement are noted with the use of CL method. These findings are aligned with the present study which finds an increase in the academic achievement through CL method.

## 5.0 CONCLUSION

In conclusion, this study is able to report findings similar to those of other studies in which the use of CL method promotes academic achievement. CL indeed has a positive effect on pupil's reading comprehension ability. Educational systems constantly look for new teaching methods that meet the diverse learning styles and needs of today's students. This study is beneficial for teachers of English and policy maker of school in incorporating cooperative learning in school system. Future research should gear toward examining teachers and administrators' perceptions in order to improve the implementation of CL method in school system.

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