Implementing Cooperative Learning in a Reading Class

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Abstract: A common teaching strategy in the language classroom is to assign students to work on a task in pairs or small groups. However, this has not always been the case in language classrooms in Iran. This study attempted to investigate how Cooperative Learning (CL) influences the reading comprehension of EFL learners. It also surveyed their attitudes toward CL. The study involved 46 university students in two intact classes. One was considered the experimental group (n=22), and the second (n=24) the control group. In the control group, reading tasks were carried out by students individually; in the experimental group, these tasks were carried out in pairs. The study lasted 12 sessions and involved the final exam as the post-test and an attitude survey which was administered in the last session. Results of the study showed that CL had an overall significant effect on students’ reading comprehension; however, both the high- and low-achievers in the experimental group expressed positive attitude toward cooperative learning. It seems that learners liked cooperative learning because they were able to progress at their own pace and, at the same time, contribute to others’ learning in such a supportive and encouraging learning context.


Key words: cooperative learning, reading comprehension, attitude

Introduction

Cooperative learning has been proclaimed as an effective instructional method in promoting linguistic development of learners of English as a social language (Kagan, 1994). "Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other’s learning. Students perceive that they can reach their learning goals if and only the other students in the learning group also reach their goals" (Johnson and Johnson, 1999, p. 5). It may be contrasted with competitive learning in which students work against each other to achieve an academic goal and individualistic learning in which students work by themselves to accomplish academic goals and they do not cooperate with each other to reach goals.

Based on Slavin’s (1995) cooperative learning model, when students are motivated to learn and to encourage and help one another, a stage is created for cognitive development. Vygotsky (1978) argued that cooperation promotes learning because the process enables learners to operate within one another’s zone of proximal development. Working with peers is academically beneficial because, when learners are closer to one another in their levels of development, they are able to explain things to each other in a simpler way that is easier to be comprehended than being explained by a person with a very different mental stage.

However, smooth change from existing classroom practices to the incorporation of innovative methods that have been documented in educational research as being effective is not always an easy process. The effective implementation of cooperative learning strategies in classrooms where the teacher traditionally lectures the students and the students are actively listening, rather than actively interacting, is not without obstacles. Students’ perceptions, views, attitudes, and behaviors play an essential role as to whether a teaching method will be successful in the classroom.

Rationale for Cooperative Learning

The use of CL in the ESL/EFL classroom has been advocated on the assumption that it promotes classroom interaction and enhances learners’ cognitive and communicative development (Kagan, 1989; Kessler, 1992; Mc Groatry, 1993). CL makes it possible for learners to have maximum opportunities “for meaningful input and output in a highly interactive and supportive environment” (Ghaiath, 2003, p. 451). It is believed that such interaction contributes to linguistic development (Long & Porter, 1985; Pica, Young, & Doughty, 1987) and to increased overall academic performance (Kagan, 1989). Moreover, comprehension and meaningful learning output are facilitated and enhanced through the opportunities that CL offers for redundancies and the use of various information sources and learning tasks (Olsen & Kagan, 1992; Webb, 1989). As such, CL becomes particularly relevant to ESL/EFL learning contexts by providing a variety of techniques for organizing instruction and incorporating language learning in various interactive and communicative contexts (Olsen, 1989). Educators have also claimed

According to Johnson and Johnson (1986), there is substantial evidence that cooperative teams gain higher levels of thought and retain information longer than students who work individually. The shared learning gives students an opportunity "to engage in discussion, take responsibility for their own learning, and thus become critical thinkers" (Totten et al., 1991, as cited in Gokhale, 1995).

According to Vernon and Louise (1998), "Students take more responsibility for helping each other with assignments and problems in cooperative learning. That alleviates some of the stress on the teacher to maintain order and to keep the students on task" (p. 495).

Slavin (1995, 1996) identified three major theoretical perspectives to explain the achievement effects of cooperative learning: motivational, social cohesion and cognitive. Motivational perspectives on cooperative learning focus primarily on the reward or goal structures under which students operate (Slavin, 1995). From a motivationalist perspective, cooperative incentive structures create a situation in which group members can achieve their own personal goals only if the group is successful. Therefore, "to meet their personal goals, group members must both help their groupmates to do whatever helps the group to succeed and, perhaps even more importantly, to encourage their groupmates to exert maximum efforts" (Slavin, 1996, p. 44). In other words, rewarding groups based on group performance creates an interpersonal reward structure in which group members give or withhold social reinforcements (e.g., praise, encouragement) in response to groupmates' task-related efforts (Slavin, 1996).

Social cohesion theorists, in contrast, emphasize the idea that students help their partners learn because they care about the group. The main feature of the social cohesion perspective is "an emphasis on teambuilding activities in preparation for cooperative learning and processing or group self-evaluation during and after group activities. Social cohesion theorists tend to downplay or reject the group incentives and individual accountability held by motivationalist researchers to be essential" (Slavin, 1996, p. 46).

The major alternative to the motivationalist and social cohesion perspectives on cooperative learning is the cognitive perspective, which holds that interactions among students will in themselves increase student achievement "for reasons which have to do with mental processing of information. Cooperative methods developed by cognitive theorists involve neither the group goals that are the cornerstone of the motivationalist methods nor the emphasis on building group cohesiveness characteristic of the social cohesion methods" (Slavin, 1996, p. 48).

There are two cognitive theories that are directly applied to cooperative learning, the developmental and the elaboration theories. The developmental theories assume that interaction among students in appropriate tasks increases their mastery of important concepts (Damon, 1984). When students interact with other students, they have to explain and discuss each other's perspectives, which leads to greater understanding of the material to be learned. The attempt to resolve potential conflicts during collaborative activity results in the development of higher levels of understanding (Slavin, 1995). The elaboration theory implies that one of the most effective means of learning is to explain the material to someone else. "Cooperative learning activities enhance elaborative thinking and more frequent giving and receiving of explanations, which has the potential to increase depth of understanding, the quality of reasoning, and the accuracy of long term retention" (Rosini & Flowers, 1997). Therefore, the use of cooperative learning methods should lead to improved student learning and retention from both the developmental and cognitive theoretical bases.

Research on Cooperative Learning

Most early studies dealt with cooperative learning in other subject areas outside the field of language learning such as social studies, science, and mathematics. However, when gaining in language acquisition of non-native speakers was documented, ESL and EFL researchers turned their attention to the approach.

Research carried out on the effectiveness of the use of CL in ESL/EFL contexts has shown that CL is very effective in developing positive attitudes towards learning and towards other learners (Gunderson & Johnson, 1980), enhancing intrinsic motivation (Clement, Dornyei, & Noels, 1994; Szostek, 1998; Ushioda, 1996), and creating solidarity among team members through their cooperation to achieve group goals (Nichols & Miller, 1994). Research has also shown that CL decreases levels of anxiety and increases self-confidence (Deci & Ryan, 1985), increases social support for academic achievement (Daniels, 1994), and increases the chance of completing academic tasks successfully (Douglas, 1983).

Research on the effectiveness of the various models of CL has shown that CL is a valuable instructional approach in the second/foreign language classroom and has underscored its potential for promoting meaningful learning. Ghaith and Yaghi
Cooperative Learning in Reading

Improving reading comprehension is a challenge facing teachers. Helping to guide and strengthen student’s comprehension is something that many teachers seem to be constantly working on. There have been few efforts that include useful reading strategies to help reading comprehension (Gauthier, 2001). It seems that teachers really don’t provide much direct instruction, modeling, coaching, and scaffolding while teaching reading comprehension (Stevens, Slavin & Farnish, 1991).

Cooperative learning technique is one of the group works considered as an effective technique in improving students’ ability in reading. Several researchers agree that it is a truly an effective technique where students are given more responsibilities and motivation to get the highest achievement.

When students are in cooperative learning groups they can brainstorm, work, and make decisions together (Milios, 2000). Cooperative learning requires students to reflect on their knowledge and make generalizations and elaborations that they can convey to their partners, which is an effective way to improve their "depth of processing" (Stevens, Slavin & Farnish, 1991). When students work together they can share their thoughts on how they managed to solve a problem or their thought process on a question. Sometimes hearing how their peers solved a problem helps students understand better than hearing instructions from an adult. The use of questioning, discussion, and cooperative learning is proven to be successful in teaching comprehension strategies (Gauthier, 2001). The more students work together, discuss, question, and summarize, the more they are able to understand and retain (Caposey & Heider, 2003). Cooperative learning provides a broader and deeper understanding of concepts and a better appreciation of others (O’Donnell, & O’Kelly, 1994).

Research has shown that good use of cooperative learning helps students stay on task, helps classroom management and creates a good classroom moral, increases positive attitudes and self-esteem, improves relations among different students, encourages responsibility and participation in learning, and increases motivation. Students are able to communicate better with each other as well as with the teacher (Caposey, & Heider, 2003; Stevens, Slavin & Farnish, 1991).

Stevens, Slavin & Farnish (1989) investigated the impact of direct instruction on reading comprehension strategies and the degree to which cooperative learning processes enhance students' learning of strategies. Subjects were assigned to instructional treatments on strategies for identifying the main idea of passages. Treatments involved cooperative learning with direct instruction, direct instruction alone, and a traditionally instructed control group. Both groups who received direct instruction on main idea strategies performed significantly better than did the control students in identifying main ideas of passages. Students who also used cooperative learning processes to summarize and explain the strategies to one another performed significantly better than did the students who received only direct instruction on the strategies.

Likewise, Ghaith (2003) reported that learners using the Learning Together model of CL did better on EFL reading achievement than learners who followed a traditional approach to reading comprehension. Specifically, this researcher reported that the Learning Together CL model was more effective than traditional whole class instruction in improving the reading comprehension of Arab learners of English who were studying English as foreign language in a multilingual context characterized by competitive instruction and limited opportunities for meaningful social interaction in the target language of English.

Hui-Yi (2003) explored the effect of cooperative learning on freshmen’s English reading comprehension, learning motivation, learning satisfaction and also to examine how the difficult levels of articles may affect the freshmen’s English reading comprehension. He found that, compared with the traditional lecture method, the cooperative learning method has significantly positive effect on promoting freshmen’s English reading comprehension, learning
motivation and learning satisfaction. As regards the three different achievement level students, the cooperative learning method benefits low-achievement students most. Moreover, it also performs better on the advanced level articles.

Seetape (2003) studied the effects of cooperative learning on English reading achievement and the students’ behavior towards this learning method used in the English classroom. The results of the study showed that the post-test scores after learning English reading using cooperative learning were higher than the pre-test scores. Most of the participants displayed very good behavior in cooperating in their tasks. Their cooperative behavior had increasingly developed.

Wichadee (2005) studied the effects of cooperative learning on English reading skill development of 40 first-year students. She also surveyed the students’ attitudes towards cooperative learning method used in English classroom, and examined their cooperative learning behaviors. Results indicated that the students obtained higher reading comprehension scores for the post-test than the pre-test scores. As to their attitudes towards cooperative learning, the findings indicated that most students rated cooperative learning moderately positive.

Alhaidari (2006) examined the extent to which the use of cooperative learning had an impact on the reading performance of grade four and five students. The researcher developed and administered pre- and post-measures for reading performance and students’ attitudes toward cooperative learning and students’ motivation toward reading. The results of this analysis indicated significant differences between experimental and control groups on post-measure of reading and students’ attitudes toward cooperative learning.

Shaaban (2006) investigated the effects of the Jigsaw II cooperative learning (CL) model and whole class instruction in improving learners’ reading comprehension, vocabulary acquisition, and motivation to read. The results did not indicate any statistically significant differences between the control and experimental group on the dependent variables of reading comprehension and vocabulary acquisition. However, the results revealed statistically significant differences in favor of the experimental group on the dependent variable of motivation to read and its dimensions, the value of reading, and reading self-concept.

Hollingsworth, Sherman and Zausra (2007) conducted an action research project to increase reading comprehension by using cooperative learning. Cooperative learning as a method of teaching turned out to be a valuable tool to help students learn comprehension strategies while encouraging positive interactions among peers. The students achieved academic success by increasing their reading levels and knowledge of comprehension skills, and there was also an increase in enthusiasm and motivation towards reading.

Yamarik (2007) found three possible reasons why cooperative learning groups performed better on exams. First, cooperative learning increased student-instructor interaction. Students felt more comfortable asking questions as a group than individually. Second, cooperative learning increased group studying for the exams. Third, the novelty of working in small groups sparked greater interest in the material.

Suwantarathip and Wichadee (2010) examined the effectiveness of cooperative learning approach in reducing foreign language anxiety and its impact on language proficiency of 40 sophomore students. It was found that the students' top five sources of language classroom anxiety and overall language anxiety were significantly decreased. In addition, they obtained higher language proficiency scores for the post-test than the pre-test. The students also had a favorable attitude toward cooperative learning as a whole.

The purpose of this study was to determine the effects of the cooperative learning approach on the reading comprehension of EFL learners and to explore the relationship between their attitudes towards cooperative learning and their performance. The following research questions provided the specific focus for the study:

1. Is the cooperative learning method more effective than traditional learning method in promoting the achievement in reading comprehension of learners?
2. Does the students' attitude towards the cooperative learning method affect their performance in reading comprehension?

Method

Participants

The study was carried out at Payame Noor University of Kermanshah. Data was collected in a reading classroom of a translation subject the freshman students were undertaking for credit. The study involved 46 first year students in two intact classes. One class consisted of 22 students and was considered the experimental group, and the second consisted of 24 students and was considered the control group.

Procedure

During the experiment two different treatment patterns were applied. Lesson plans of both the groups addressed the same instructional objectives based on the same reading passages and exercises. However, the experimental plans provided opportunities for small-group interaction and sharing resources among team members. Conversely, students in control group worked individually and shared their answers with the class.
The experiment continued for 12 sessions. At the end of the treatment the posttest, i.e. the university final exam, was administered to measure the achievement of the sample subjects.

At the end of the treatment, a questionnaire was employed in the experimental group to gather information about their attitudes towards cooperative learning (see Appendix).

**Results**

In order to analyze the effects of cooperative learning method and traditional teaching methods on reading comprehension achievement of the subjects, their grades in the final reading exam were analyzed. Mean, Standard deviation and difference of means were computed for each group. Independent samples t-test was applied to measure the significance of the difference between the means of the two groups.

Table 1 shows the difference between reading comprehension achievement post-test scores of experimental and control groups. The mean score of the experimental group is 15.81, whereas the mean score of the control group is 13.87. It seems that cooperative learning is more effective in improving reading comprehension skills of EFL learners when compared with traditional teaching methods. This finding of the present study supports the findings of various other studies carried out through reading comprehension and cooperative learning (Adams, 1995; Ghaith, 2003; Stevens, 2003).

According to Table 2, there is a statistically significant difference at α=0.05 between the achievement of the experimental group and that of the control group on the posttest in favor of the experimental group. This difference indicates that using cooperative learning for teaching English skills may have had a positive effect on students’ achievement.

The relationship between the reading scores and attitudes towards cooperative learning was calculated through the Pearson Correlation Coefficient. The results are illustrated in Table 3. It shows that the students' attitudes and their reading achievement are not correlated. Both the high- and low-achievers in the experimental group expressed positive attitude towards learning English and the instructional method of cooperative learning. They seemed rather happy to learn English through cooperative learning because they were able to progress at their own pace and, at the same time, contribute to others’ learning in such a supportive and encouraging learning context.

**Conclusion**

Considering the results of the present study, it is obvious that cooperative learning is more effective in improving reading comprehension of learners when compared with traditional teaching methods. It was also found that both high and low achievers in the experimental group had positive attitudes towards CL. This result is in agreement with the findings of various other studies carried out through reading comprehension and cooperative learning (Adams, 1995; Ghaith, 2003; Stevens, 2003). This result is in agreement with the learning theories proposed by proponents of collaborative learning.

According to Vygotsky (1978), students are able to perform at higher intellectual levels when asked to work in collaborative manner than when asked to work individually. Group variety in terms of knowledge and experience contributes positively to the learning process. Bruner (1985) maintains that cooperative learning methods improve problem solving strategies because the students deal with different understandings of the given situation. The group support system makes it possible for the learner to internalize both external knowledge and critical thinking skills and use them as tools for intellectual functioning.

Since reading is a multidimensional process covering various aspects such as communication, perception and cognitive, affective and kinesthetic process, carrying out reading comprehension activities through cooperative learning strategies has helped the process to be experienced more actively (Polat, 2011).

Researchers (e.g. Kuhn & Stahl, 2004; La Berge & Samuels, 1974; Samuels, 1979; Stanvoich, 2000) point out that over time, improved reading fluency has a positive impact on students’ decoding and comprehension skills. According to automaticity theory, readers may become fluent when they are able to decode words rapidly and understand their meaning. Therefore, if readers can decode and understand a word quickly, they will allocate more of their cognitive resources toward comprehension of the text. Thus, cooperative learning activities such as peer reading and modeling can improve fluency, which may shrink the time students need to decode text, and eventually lead to improvement in their comprehension (Alhaidari, 2006).

Much of reading in the real world involves some sort of interaction between people. Unfortunately, many reading teachers do not take into account the social nature of learners and the human desire for interaction. Instead, students are often assigned to read texts and individually do activities that may be demotivating. Furthermore, typical reading exercises tend to be of limited use in helping students to understand why they made mistakes.
Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>22</td>
<td>15.8182</td>
<td>1.50036</td>
<td>.31988</td>
</tr>
<tr>
<td>Control</td>
<td>24</td>
<td>13.8750</td>
<td>1.72734</td>
<td>.35259</td>
</tr>
</tbody>
</table>

Table 2: T-Test Results of the Experimental and the Control Groups on the Posttest.

<table>
<thead>
<tr>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.056</td>
<td>44</td>
<td>.00</td>
<td>1.94318</td>
<td>.47904</td>
</tr>
</tbody>
</table>

Table 3: Pearson Correlation Coefficient of Reading Scores and Attitude in the Experimental Group

<table>
<thead>
<tr>
<th></th>
<th>Reading</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.098</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.663</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>22</td>
</tr>
</tbody>
</table>

Collaborative reading techniques motivate students, help students to understand their mistakes, allow them to teach and learn from each other, and help develop critical thinking (Goodmacher & Kajiura, 2010).

It seems that the implementation of cooperative learning is a possible strategy to address the problems of low English proficiency and low motivation in EFL learners because cooperative learning methods hold great promise for accelerating students' attainment of academic learning, motivation to learn, and the development of the knowledge and abilities necessary for achieving success in an ever-changing world.

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References


**APPENDIX**

Please give your honest response to each statement.

1. I like to work in groups in reading class.  
   Agree  Neutral  Disagree

2. I ask questions of others when I work in a group.  
   Agree  Neutral  Disagree

3. Others in the group ask me questions when we work in groups.  
   Agree  Neutral  Disagree

4. I have more confidence to try problems when I work in a group.  
   Agree  Neutral  Disagree

5. Working in a group helps me understand the concepts better.  
   Agree  Neutral  Disagree

6. Working in a group helps me get the work completed on time.  
   Agree  Neutral  Disagree

7. Working in groups helps me to learn quicker and retain more.  
   Agree  Neutral  Disagree

8. When I work in a small group, everyone is encouraged to contribute.  
   Agree  Neutral  Disagree

9. When I work in a small group, ideas and opinions are treated with respect.  
   Agree  Neutral  Disagree

10. I am comfortable asking the teacher questions if I don’t understand something.  
    Agree  Neutral  Disagree

11. I am comfortable asking a group member questions if I don’t understand something.  
    Agree  Neutral  Disagree

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