Impact of Cooperative Learning on achievement in an English as a Second Language classroom

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Abstract

Cooperative learning is a teaching arrangement that refers to small, heterogeneous groups of students working together to reach a common goal. Its effectiveness had been documented through numerous research studies. However, very few published materials have been done on the relationship between the uses of cooperative learning as a teaching method to increase students' achievement in learning English as a second language schools. Therefore, the purpose of this study was to discover the relationship between cooperative learning and achievement in English language acquisition in an ESL class in Basic education schools. This study was conducted in a rural basic education school in Gezira province in Sudan. A total of 44 respondents from two classes have participated. The experimental group received teaching method using cooperative learning strategies, while the control group received traditional lectures method. Qualitative and quantitative data were gathered in this study using two types of instruments: 1- post-test and questions in the four basic language skills (Reading, Writing, Listening and speaking) and, 2- questionnaires and written interviews for the students and teachers of the subject. Data analysis was done using SPSS version 20.0 program. It was found that all respondents from the experimental group showed a significant improvement in the four language skills compared to their peers in traditional class. In conclusion, this study suggests that cooperative learning enhances students’ achievement in learning English and create a positive relationships between the students which may help them in acquisition of the new language skills.

Keywords: Cooperative learning, ESL, Gezira, Sudan

Introduction

English language is considered as a very important subject in basic and secondary schools in Sudan. However, the standard of achievements among the students is still very poor especially in rural schools. Results of the Sudanese Secondary School Certificate have shown that students in secondary schools perform poorly in English subject last years. Because of this, numerous efforts have been taken by the ministry of Education to overcome it. Several programs have been established to increase the abilities of English teachers and tutors in introducing the subject, as
well as the continuous improvement and changes made in the curriculum and shifting from the Sudan Practical Integrated National English (SPINE), to Sudan Modern Integrated Learning of English (SMILE) series.

Despite all these efforts, the results were still not very encouraging. Many students were still facing problems in speaking and writing in English due to the lack of interest and exposure in using the language in the classroom. This may represent an open invitation for the researchers in the field to look for new novel teaching procedures to introduce the subject.

The problems faced by the students affect the students’ English results. Hence, it is hoped that introducing a strategy like Cooperative learning will help to enhance students’ achievement in English language acquisition in basic schools.

Cooperative learning is described as a large group of instructional strategies in which students collaborate in order to reach a common goal. Cooperative learning has been practiced throughout human history and is a part of educational practice (Shih Chiu-lan Chern Graduate Student & Liang, 2002). Its effectiveness has been documented through numerous research studies. Because of the significant achievement when using Cooperative learning in the classroom by many researchers, this study will focus on the relationship between using the strategy of Cooperative learning and students’ achievement in English language acquisition in a basic school class.

**Background of the Study**

Basic school students, especially from rural areas, always face major difficulties in acquiring English (Gilakjani & Sabouri, 2016). The exposure of rural students in English language occurs mainly and may be only in the classroom. They hardly speak English outside the classroom. Instead, they speak in their mother tongue to their family members at home and to their friends in their communities (Luo, 2014). They do not like learning English because they think that English language is a very difficult subject and they do not have the interest to learn and acquire it (Athanasopoulos, Damjanovic, Burnand, & Bylund, 2015). This affects the students’ English performance in the class, the exams and finally in their future learning.

This study aims to find out whether cooperative learning can improve the students’ English language acquisition and achievement in a Sudanese Grade-7 basic education classroom in the four skills (Reading, Writing, Listening and Speaking).

**Significance of the study**

This work is expected to redirect the teaching strategies towards cooperative learning in ESL classrooms in different educational levels. Students who learn the language by this method were expected to gain many of the benefits of cooperative learning beyond master of language skills, the benefits were expected to extend to personality and attitude of the engaged students.
This study benefits the participating school, the subject teachers, as well as the students enrolled in the study. The students can gain a lot of benefits because cooperative learning approach can give students the chance to develop positive and productive relationships. It gives students opportunities to learn from one another rather than receive information from the teacher or text alone.

**Literature Review**

Cooperative learning may be considered now as one of the most promising practices in the field of education. Many researchers show that cooperative learning results in higher achievement and greater productivity; more caring, supportive, and committed relationships, in addition to greater psychological health, social competence, and self-esteem (R. T. Johnson & Johnson, 1994; Kagan, 1994; Slavin, 1991).

In recent years, cooperative learning represents a significant concept and instructional practice in the field of second language education. Attention has been paid to the pedagogical and psychological rationale of its use in second language classrooms (Long & Porter, 1985) and to possible benefits it might have in bilingual programs and second or foreign language settings (Dove & Honigsfeld, 2010).

A commonly held belief in the field of second language education is that cooperative learning maximizes second language acquisition by providing opportunities for both language input and output (Chin-Min Hsiung, 2012). Compared with research on cooperative learning in mainstream education, research on cooperative learning in second language education is surprisingly less extensive. Although theorists take cooperative learning to be beneficial to second language learners, to the best of our knowledge, only a few studies have focused on cooperative learning and second language acquisition (Krashen, 1981; Romberg & Saffran, 2010).

Early studies on cooperative learning and interaction in ESL was carried out by many researchers in intermediate-level adult ESL classes. The studies compared teacher-led discussions with pair discussions in order to examine the amount and variety of student talk in both situations. Their results reveal that students in pairs produced a significantly greater amount and variety of student talk than in the teacher-led discussions (Muijs & Harris, 2006). They not only talked more, but also produced a wider range of language functions.

(D. W. Johnson & Johnson, 1999) also said that Cooperative learning is a student-centered approach believes that active learning is more effective than passive one where the teacher becomes a facilitator rather than an instructor (D. W. Johnson & Johnson, 1999). Through cooperative learning, students have to exchange ideas, make plans and propose solutions to accomplish a collaborative goal. Therefore, it can enhance students’ social and personal developments.
Cooperative learning is claimed to have the capacity of helping second language learners draw on their primary language resources as they develop the language skills. Based upon the conclusions drawn from previous studies, cooperative learning was recommended to be integrated into the school English instruction as part of the Curriculum (Azizinezhad, Hashemi, & Darvishi, 2013). Smith Karl, (1985) reported that when working in groups, bilingual students acted as intermediaries, serving as crucial links in providing information to other group members in both languages (Smith, 1996).

In addition to the focus on the impact of cooperative learning on the amount of interaction in ESL, research has also been carried out to examine the effect of cooperative learning on second language proficiency. Oxford RL (1999) suggest that cooperative learning resulted in better performance on an overall measure of English proficiency and on a listening comprehension subtest. The researchers suggest that students had opportunities to speak more frequently and to use different language structures in the small-group settings (Oxford, 1999). Bejarano (1987) reported in previous study that students in classes using cooperative learning methods were found to make significant improvements in an overall English proficiency test and in a listening comprehension subtest as opposed to students in classes using whole-class methods (Bejarano, 1987).

Much of the literature in the fields of education and second language teaching revealed and emphasized that cooperative learning is not simply putting students in a group in order to accomplish a task, but a well-planned strategy designed to promote content learning and master the second language. An extensive search in the web found 164 studies investigating eight cooperative learning methods. The studies reviled that the positive effects were found in all grade levels, in urban, rural, and suburban schools (Abrami & Chambers, 1996). In a meta-analysis of 158 studies, Johnson & Johnson stated that most of the current research findings prove that the methods of cooperative learning are likely to produce positive achievement of the students compared to individualistic or competitive methods of learning (D. W. Johnson, Johnson, & Stanne, 2000).

**Method**

**Framework**

This research is a case-control study. The purpose of this study is to find out the relationship between cooperative learning and achievement in the English language skills among the students of Grade-7 basic education in Sudanese basic education school. The framework of the research is shown in figure-1 below:
Population and Sample

The sample for the study was drawn from Grade-7 basic education school in Gezira - Sudan. The target schools were Omdwana basic school and Um-hason basic school. The two classes were located in the same village with the same cultural and social environment.

Group-1 class which represents the control group was subjected to the traditional learning procedures, mainly teacher-led lessons from the SPINE series normally scheduled for their level. The same lessons were given to the experimental group which is represented by Group-2 students using the strategy of cooperative learning. The teachers were aware of the cooperative learning techniques since they had been enrolled in a workshop on the topic previously. The workshop was conducted by the researcher in order to explain the structures of cooperative learning in teaching English as a second language.

The total number of the population form the two classes was 44 students, 23 of them were enrolled in the control class and 21 students were cooperative learning group.
Instruments

Two different methods were used to collect data for this study. Tests in English language skills to measure the student’s achievement and a structured questionnaire to assess the students and teachers opinions in learning and teaching English.

Tests

Final tests were conducted for the students in both groups to test their achievements in the four English language skills (Writing, Reading, Listening and Speaking) using the standardized test in the topics covered in the modules. And the results in each skill were compared between the students using either of the two learning strategies.

Questionnaire

A structured questionnaire was given to the students from the two groups at the end of the exams to assess their opinions in the subject, the learning environment, the preferred learning techniques, the difficulties facing them in learning and acquisition of the language and other critical variables. Structured written interview was performed to the English teachers as well to get their opinions in the teaching methods and the problems that face them in implementation of the teaching strategy.

Statistical analysis

The data was coded and edited before being transferred to the computer for data analysis. The system used for data analysis was the SPSS version 20. The scores obtained from the test in the four language skills for the experimental and control groups were compared in terms of means and standard deviations. Student T-test was used in order to find out whether there is any significant difference between the two classes, P < 0.05 was considered to be statistically significant. In addition, the answers from the questionnaire and interviews with teachers and students were analyzed and described on the effectiveness of cooperative learning.

Results and Discussion

A total of 44 students were subjected for the present study, categorized into two groups according to the learning strategy used for introducing the English language lessons. Group-1 was the cooperative learning group (N = 23) and Group-2 represents the class of Traditional learning group (N = 21).

Achievement in English Language

Students’ results in the language tests show that the cooperative learning class score higher in the four language skills compared to their peers in the traditional class, especially in the Listening and speaking skills as shown in table-1.
Table 1. Achievement in the four language skills in Groups of Cooperative Learning and Traditional Learning

<table>
<thead>
<tr>
<th>Language Skills</th>
<th>Cooperative Learning (N = 23)</th>
<th>Traditional Learning (N = 21)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>83.13 ± 15.6</td>
<td>66.86 ± 20.0</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Writing</td>
<td>88.00 ± 10.0</td>
<td>75.24 ± 15.3</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Speaking</td>
<td>85.91 ± 15.7</td>
<td>70.86 ± 12.1</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Listening</td>
<td>85.91 ± 12.2</td>
<td>62.67 ± 16.7</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

The average results in the Listening and speaking tests in the experimental group were found to be 85.91 ± 12.2 and 85.91 ± 15.7 respectively, while those of the traditional learning class were 62.67 ± 16.7 and 70.86 ± 12.1. Respectively. The difference between the means was found to be statistically significant (P<0.001) for both variables as shown in table-2.

Table-2. Student t-test analysis for the significance of difference in the mean achievement in the four language skills between Groups of Cooperative Learning and Traditional Learning.

<table>
<thead>
<tr>
<th>Language Skills</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>1.114</td>
<td>.297</td>
<td>3.017</td>
<td>42</td>
<td>.004</td>
<td>1.34725 – 6.78940</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Language Skills</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
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</table>
Likewise, the scores are higher for the Writing and Reading skills in the cooperative learning group compared to the traditional learning class. The means were found to be 88.00 ± 10.0 and 83.13 ± 15.6 for Writing and Reading tests in the cooperative learning group while those of the traditional class were 75.24 ± 15.3 and 66.86 ± 20.0 respectively as shown in figure-1. The differences in the means were significant as well (P < 0.05), as shown in table-2. And figure-2.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Mean1</th>
<th>SD1</th>
<th>Mean2</th>
<th>SD2</th>
<th>P-value</th>
<th>T-statistic</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>3.296</td>
<td>0.077</td>
<td>3.284</td>
<td>0.002</td>
<td></td>
<td>1.22969</td>
<td>5.15126</td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>1.995</td>
<td>0.165</td>
<td>3.531</td>
<td>0.001</td>
<td></td>
<td>1.61247</td>
<td>5.91548</td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td>1.847</td>
<td>0.181</td>
<td>5.300</td>
<td>0.000</td>
<td></td>
<td>3.59860</td>
<td>8.02459</td>
<td></td>
</tr>
</tbody>
</table>

Figure-2. Achievement in the four language skills in Groups of Cooperative Learning and Traditional Learning.
These results of higher achievement in the cooperative learning class were consistent with many previous studies that support the use of cooperative learning in ESL classes and provide enough evidence for this approach in acquiring and achievement in the second language (Pica & Doughty, 1985); (Alharbi, 2015); (Athanasopoulos et al., 2015); (Wang, 2012). As the students progressed in their group activities, there was a real progress in the learning and understanding of the language. Students usually get more knowledge from their peers than from the spoon-feeding approaches.

**Questionnaire and Comments on Cooperative Learning**

Many positive comments were obtained in the questionnaires given to the students and teachers regarding the cooperative learning implementation. Most of students (84%) prefer to learn by doing something rather than been given a lecture as shown in figure-3a for the students’ response to question-1. Moreover, all the respondents (100%) agreed that they prefer and liked working in groups during their English lessons as shown in figure-3b.

Some students stated that they began to love the subject feeling that the language periods look like fun or a happy break. One student said that “The English period in the past was a real nightmare, since I had to memorize what my teacher said in the last lesson to be in touch, now I just share may classmates in the given task and I can ask so many questions and make dialogues during the class”. Another student stated “he feel that he is more positive and feeling confident when talking to his peers than talking to the teacher”.

Besides, respondents in the cooperative learning class were also subjected to written interviews to find out the aspects they improved. Interviews were conducted with the respondents after the final tests. Below are some of the positive comments given by the respondents:

1. I can gain a lot of new knowledge.
2. I learn useful and new things in groups during the lessons.
3. I like to do the work together with my friends.
4. We can share our ideas and opinions together.
5. Cooperative learning help me to improve my social skill.
6. It is funnier and I think that it is easy to learn by using cooperative learning.
7. It releases my tension and stress.

Group work helped learners to learn new knowledge and new experiences in the language classroom. More heads is better than one head and could enrich the input of the lesson.
As seen in third, fourth and fifth positive comments, some learners in the group felt learning in groups helped them to understand the lessons better especially when they faced problems in understanding something new. They could help each other to perform the task and solve their problems. This finding was consistent with the study by Slavin (Slavin, 1991). He found out that cooperative learning improved the achievement of students and their interpersonal relationships. Cooperative structures may give students the chance and opportunity to develop positive, productive relationships among themselves.

Figure-3. Students' response to Questionnaire
The sixth and seventh positive comments referred to one of the benefits of cooperative learning. It was consistent with Krashen’s affective filter hypothesis (Krashen, 1981). He stated that “affective filter was an imaginary barrier which prevented learners from acquiring language from the available input. According to the hypothesis, the filter will be ‘up’ when the learner was stressed, or unmotivated. It will be “down” when the learner was relaxed and motivated”. Students in the cooperative learning class are motivated and stressed, so they make every effort to complete the assigned task.

Students like to study the language but they prefer working in groups, they enjoy learning when doing so. Only few number of students (7%) stated that they dislike the subject and learn the language just to pass the exams as shown in figure-3c.

On the other hand, the majority of students (87%) like the language as in figure-3d, and most of them (82%) like to work in projects as shown in figure-3e.

In response to questions asking about traditional learning strategies, students show little variations in their preferences, however the general trend remains in preferring working in groups. In response to question about what is written on the blackboard (77%) of the students did not agree that they learn better by reading what the teacher writes as shown in figure-3f.

**Interviews with English Teachers**

Structured interviews were also conducted with the English teachers in the schools. Most of the teachers agreed that cooperative learning can enhance the students’ achievement in English language acquisition but it depended on the language ability of the students. It may be beneficial and work well on good students but not on weak students.

Some of the positive comments given by these teachers who had adopted this method are stated below:

- Cooperative Learning gives the students chances to explore the subject on their own.
- It varies the teaching strategy.
- It makes the class lively.
- The students do not get bored easily.
- The students have the opportunity to express their ideas and show their talents.
- Students learn better when they have the chance to learn from their peers.
- It is more effective and all the students can have their turns.
Based on the statements given by the English teachers, it was obvious that cooperative learning promotes communication and increases the participation of students. It provides better quality work. The statements are similar to the finding of many researchers (Wang, 2012); (Parveen & Batool, 2012); (Ebrahim, 2012), who shows that cooperative learning provides positive effects on academic achievement as well as social relationship between students. All students, regardless of their abilities and levels, benefit from the cooperative experiences.

**Conclusion**

Overall, it can be concluded from the observations that the classroom participation level was increased when a cooperative learning strategy was implemented. Cooperative learning structures enabled students to acquire English language and have more achievements in the language skills as well as create more caring, supportive, and committed relationships which were also found and suggested by Johnson & Johnson (D. W. Johnson et al., 2000), Kagan (Kagan, 1994), and Slavin (Slavin, 1991) in their previous studies.

As the students progressed in their group activities, there was progress in the learning, understanding and achievement in the language skills. The positive comments given by English teachers and students confirm that the cooperative learning approach in the teaching of English language creates opportunity for students to be involved directly in the learning process and in English Language acquisition.

**Recommendations**

Cooperative learning is an effective learning strategy and could be implemented to all different types of students. However, different students might need different strategies. There were students who could not get along, the students who preferred to always work alone, and the students who could not keep up. The teacher should let these students knew that they were to focus on improving their social skills.

Some teachers were worried that one child will do the assigned work, but that every student in the group will get the same mark. Besides, some teachers thought that students might not have team work skill to work in groups. These may represent valid reasons why cooperative learning might not work and might bring negative effects on some students. But if we trace back the percentage, such students were only a minority. Moreover, practitioners should realize that a failure in cooperative learning strategy is not caused by the approach. More failures in cooperative learning has to do with the learning styles of the students. Selfish or Introvert students do not like to cooperate with others. Thus it is not the fault of the approach.
Acknowledgements or Notes

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References


### Author Information

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