The Impact of Cooperative Learning on Iranian Intermediate EFL Learners’ Reading Comprehension

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Abstract
This study examined the effect of cooperative learning as a part of cooperative learning on Iranian EFL learners’ reading comprehension. To this end, 40 intermediate participants were selected out of 73 EFL learners based on the results of Oxford Quick Placement Test (OQPT). The participants were divided into two groups: control and experimental. Then, the participants of both groups were pretested on reading comprehension. After pre-test, the cooperative learning activities (Cooperative learning) were practiced with the participants of the experimental group during 5 sessions. The experimental participants were assigned to five-member teams to work on reading texts. Each team member read an assigned section and then members from different teams who had studied the same sections met in ‘expert groups’ to discuss their sections. Then, students returned to their own teams and taught their team-mates about their section. On the other hand, the control group received traditional teacher-fronted instruction throughout the classroom time. After the treatment sessions, a teacher-made reading comprehension post-test was given to the participants of both groups to measure their reading comprehension ability after the treatment. The results of paired samples t-test and independent samples t-test revealed that the experimental group outperformed the control group on the post-test. The findings also showed that there was a significant difference between the post-tests of both groups in favor of the experimental group.

**Keywords:** reading comprehension, cooperative learning, Iranian intermediate EFL learners
A. Introduction

Cooperative learning is a kind of teaching technique in which small teams with members of various potentialities and abilities utilize diverse learning activities to develop their understanding of a topic (Johnson & Johnson, 1989). Johnson and Johnson (1994) define cooperative learning as an instruction in which teams of students work and study together to reach a specific purpose. By using cooperative learning, learners have more chances to practice English cooperatively in order to learn more effectively from their peers and teachers. Lai (2002) states that cooperative learning can assist pupils to improve their social abilities and interpersonal relationships by interactions with group mates.

Jigsaw is a sort of cooperative learning task that makes understudies to speak with one another to fill in missing data and to incorporate it with other data. Sahin (2010) attests that "jigsaw method permits understudies to effectively take an interest in learning process. By being continually exposed to this technique, understudies should feel increasingly good about their jobs" (p. 778). Haryanto (2012) holds that in Jigsaw method the students bring out the learning exercises through helping out their cohorts so as to get their points.

What's more, Gladstone (2013) contends that the Jigsaw procedure is a helpful learning action in which groups of students get specialists in different subjects, at that point instruct different students what they have realized. Klippel (1984) states that Jigsaw is one of the exercises which is applied in instructing. In Jigsaw action, every part is similarly significant since each is dependable to take care of the issue. In light of the referenced proclamations, Jigsaw can upgrade cooperative and common learning in the group (Namaziandost, Neisi, Mahdavirad, & Nasri, 2019).

Utilizing Jigsaw method can be valuable for improving Iranian EFL students' understanding cognizance. Perusing is significant in unknown dialect learning and has a crucial influence in acquiring data and information from unique assets. While familiar disentangling is a pivotal element of gifted perusing, it ought to be viewed as an essential to effective appreciation instead of an end in itself (Namaziandost, & Çakmak, 2020; Block & Pressley, 2002; Namaziandost, Shatalebi, & Nasri, 2019). Perception incorporates building implying that is reasonable and exact through interfacing what has been perused to what the readers definitely knows and thinks pretty much the entirety of this data until it is understood. As indicated by Block and Pressley (2002), perception is the fundamental point of understanding guidance.

Along these lines, perusing perception is the demonstration of appreciating and developing significance from various sections (Brown, 2007; Namaziandost, Neisi, Kheryadi, & Nasri, 2019). In this way, students need extraordinary perusing expertise for getting information and learning new data. Notwithstanding, Iranian EFL students are not incredible in understanding appreciation. They read the writings for responding to the inquiries not for downplaying the writings. What's more, they read the writings exclusively not in group. This examination plans to help Iranian EFL students to improve their perusing understanding through cooperative learning.

Iranian EFL learners do not have the opportunity to express and to use language in the real context and consequently this can lead to forgetting the materials soon. In addition, tasks are overlooked in Iran educational contexts (Namaziandost, Hashemifardnia, & Shafiee, 2019). Although, learning by doing helps learners improve their language proficiency, it has not received the attention it deserves. Therefore, the current research tried to cover these issues, hoping it would be a step to enhance Iranian EFL learners' reading comprehension by doing tasks.

The following research question was answered in the present study:

RQ. Does cooperative learning have any significant effect on Iranian EFL learners' reading comprehension?

The following null hypothesis was tested in this study:

HO. Cooperative learning does not have any significant effect on Iranian EFL learners' reading comprehension.
B. Method

2.1 Participants

In this research, 73 Iranian EFL learners from Parsian Language Institute in Ahvaz, Khouzestan, Iran took the Oxford Quick Placement Test (OQPT). Based upon their scores on this test, 40 intermediate learners whose scores were one standard deviation above and below the mean were selected, and divided into two groups; control and experimental. Non-random sampling was employed to select the participants. The age range of the participants was between 17 and 20. All the participants were female and their first language was Persian.

2.2 Instruments

The first instrument which was used in the present study to homogenize the participants was the OQPT. It was administered to determine English language proficiency level of the participants prior to the start of the treatment. According to this test, the learners whose scores were between 30 and 47 (out of 60) were considered as the intermediate learners.

The second instrument was a reading comprehension pre-test. The test was made of 30 fill-in-the-blank, short answer, and true/false questions testing the participants’ reading comprehension. This test was designed based on the students’ course book (Family and Friends). To test the validity of the pre-test, the researcher presented this tool to a panel of specialists to be refereed including professors of teaching methodology, supervisors of English language and highly qualified and long experienced English teachers taking their valuable notes into consideration. The reliability of the test was calculated through using KR-21 formula (r=.812). It is worth mentioning that the pre-test was piloted on a sample group including 15 learners with the same characteristics as the target sample.

The third instrument of this study was a researcher-made post-test of reading comprehension. In fact, the pre-test was modified and used as the post-test of the study. In the post-test, the order of passages and questions was changed to wipe out the probable recall of pre-test answers. Since the post-test was the modified version of the pre-test and there were only slight differences between them, the post-test was regarded both reliable and valid.

2.3 Data Collection Procedure

At the outset of the study, the participants were homogenized and then they were pretested on reading comprehension. After the pre-testing, the participants were assigned in two control and experimental groups. Then, cooperative learning activities were practiced with the participants of the experimental group during 5 sessions of the semester. Each class time was organized in the following way:

First, ten minutes were spent on greeting and checking the presence of students in the class. Later, the teacher introduced the students to the topic of the reading passage and asked some pre-reading questions as a way of activating their background knowledge or providing them with the sufficient knowledge. The experimental students were exposed to teaching process based on the principles of cooperative learning (Jigsaw) method whereas the students in the control group were taught the same materials using traditional teacher-centered instruction.

The experimental students were assigned to five-member teams to work on reading texts. Each team member read an assigned section, and then members from different teams who had studied the same sections met in ‘expert groups’ to discuss their sections. Then, students returned to their own teams and took turns teaching their team-mates about their section. After completion of the treatment sessions, a teacher-made reading comprehension test (post-test) was given to the groups to measure their reading comprehension ability after the treatment.

2.4 Data Analysis

When the collection of data was completed, the data were processed and entered on the computer for data analysis. In order to answer the research question, data analysis was carried out...
by using SPSS software version 21. Firstly, in order to check the normality of the data, Kolmogorov-Smirnov (K-S) test was used. Then, statistical tools including paired samples t-test and an independent sample t-test were run to measure the impacts of the treatment on the subjects’ reading comprehension.

C. Results

Table 1: One-Sample Kolmogorov-Smirnov Test

|                   | Control pretest | Experimental pretest | Control posttest | Experimental posttest |
|-------------------|-----------------|----------------------|------------------|-----------------------|
| N                 | 20              | 20                   | 20               | 20                    |
| Normal Parameters |                 |                      |                  |                       |
| Mean              | 12.8000         | 13.1500              | 12.9500          | 16.7000               |
| Std. Deviation    | 2.65401         | 2.60111              | 2.34025          | .80131                |
| Most Extreme Differences |       |                      |                  |                       |
| Absolute          | .299            | .271                 | .201             | .309                  |
| Positive          | .221            | .271                 | .201             | .309                  |
| Negative          | -.163           | -.163                | -.149            | -.191                 |
| Kolmogorov-Smirnov Z | .828          | 1.211                | .901             | 1.381                 |
| Asymp. Sig. (2-tailed) | .499        | .106                 | .392             | .044                  |

a. Test distribution is Normal.

b. Calculated from data.

In the above table, One-Sample Kolmogorov-Smirnov Test was used to check the normality of scores. Based on this table, the data are normal, therefore, the parametric statistics (independent samples t-test and paired samples t-test) were used in the following table.

Table 2: Descriptive Statistics of Both Groups in the Pre-test

|          |                  |                   |                  |                  |
|----------|------------------|-------------------|------------------|------------------|
| Groups   | N                | Mean              | Std. Deviation   | Std. Error Mean  |
| Control  | 20               | 12.8000           | 2.33057          | .52113           |
| Experimental | 20        | 13.1500           | 2.60111          | .58163           |

In the above table, the mean scores of both control and experimental groups in the pre-test are presented. Based on this table, the mean score of the control group is 12.80 and the mean score of experimental group is 13.15.

Table 3: Independent Samples t-test of Both Groups in the Pre-test

|          |                  |                   |                  |                  |                  |                  | 95% Confidence Interval of the Difference |
|----------|------------------|-------------------|------------------|------------------|------------------|------------------|-----------------------------------------|
|          |                  |                   |                  |                  |                  |                  | Mean Difference | Std. Error Difference | Lower | Upper |
| Levene’s Test for Equality of Variances | t-test for Equality of Means |                  |                  |                  |                  |      |                  |                  |                  |                  |                  |
| F        | Sig.             | T                 | Df               | Sig. (2-tailed)  | Mean Difference | Std. Error Difference | Lower | Upper          |
| Equal variances assumed | 1.797          | .188              | -.448            | 38               | .657             | -.350            | .780          | -1.930 | 1.230  |
| Equal variances not assumed | -.448         | 37.551            | .657             | -.350            | .780             | -1.931 | 1.231          |

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According to Table 3, the difference between the control and experimental groups is not significant at \( p<0.05 \) since \( \text{Sig} \ (0.657) \) is greater than 0.05. This table shows there is not any significant difference between the pre-tests of the control and experimental groups.

### Table 4: Descriptive Statistics of Both Groups in the Post-test

| Groups       | N   | Mean  | Std. Deviation | Std. Error Mean |
|--------------|-----|-------|----------------|-----------------|
| Control      | 20  | 12.950| 2.35025        | .52553          |
| Experimental | 20  | 16.700| .80131         | .17918          |

In the above table, the mean scores of both control and experimental groups in the post-test are indicated. Based on this table, the mean score of the control group is 12.95 and the mean score of experimental group is 16.70.

### Table 5: Independent Samples t-test of Both Groups in the Post-test

| Levene's Test for Equality of Variances | t-test for Equality of Means |
|----------------------------------------|-----------------------------|
| F       | Sig. | T   | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Equal variances assumed | 22.965 | .000 | -7.654 | 38 | .000 | -4.250 | .555 | -5.374 | -3.125 |
| Equal variances not assumed | -7.654 | 23.358 | .000 | -4.250 | .555 | -5.397 | -3.102 |

According to Table 5, the difference between the control and experimental groups is significant at \( p<0.05 \) since \( \text{Sig} \ (0.000) \) is less than 0.05. This table shows there is a significant difference between the post-tests of control and experimental groups in favor of experimental group.

### Table 6: Paired Samples Statistics (Pre and Post-tests of Control and Experimental Groups)

| Groups              | Mean  | N   | Std. Deviation | Std. Error Mean |
|---------------------|-------|-----|----------------|-----------------|
| Control pretest     | 12.800| 20  | 2.33057        | .52113          |
| Control posttest    | 12.950| 20  | 2.60111        | .58163          |
| Experimental pretest| 13.150| 20  | 2.35025        | .52553          |
| Experimental posttest| 16.700| 20  | .80131         | .17918          |

Based on the descriptive statistics in the above table, the mean score of the control group in the pre-test is 12.80 and their mean score in the post-test is 12.95. This table shows that the mean score of experimental group in the pre-test is 13.15 and their mean score in the post-tests is 16.70.

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Table 7: Paired Samples Test (Pre and Post-tests of Control and Experimental Groups)

|                  | Paired Differences | 95% Confidence Interval of the Difference | T  | df | Sig. (2-tailed) |
|------------------|--------------------|-----------------------------------------|----|----|----------------|
|                  | Mean | Std. Deviation | Std. Error Mean | Lower | Upper |                 |
| Control pretest  | -.350 | 1.30            | .29              | -.962  | .262  | -1.196 .246     |
| Control posttest |       |                 |                  |        |       |                 |
| Experimental pretest | -4.25 | 1.61            | .36              | -5.00  | -3.492 | -11.746 .000    |
| Experimental posttest |       |                 |                  |        |       |                 |

Table 7 shows that the difference between the pre-test and post-test of the control group is not significant because Sig (.246) is greater than 0.05, on the other hand, this table depicts that the difference between the pre-test and post-test of the experimental group is significant because Sig (.000) is less than 0.05. We can say that the treatment affected the experimental group positively.

D. Discussion

In this part the research question “Does cooperative learning have any significant effect on Iranian EFL learners’ reading comprehension?” is answered based on the results obtained in the result section. Subsequent to group the information, the specialist investigated them so as to discover the viability of Jigsaw strategy on the understudies’ understanding appreciation. The discoveries indicated that the understudies who got guidance through Jigsaw method would be advised to execution contrasted with the individuals who were prepared through conventional homerooms. The outcomes measurably uncovered that the experimental group essentially showed improvement over the benchmark group (p < .05). Therefore, the null hypothesis of the study “Cooperative learning does not have any significant effect on Iranian EFL learners’ reading comprehension” was rejected.

Actually, the experimental group increased higher scores on their post-test. This might be because of some engaging highlights the Jigsaw strategy has. The Jigsaw system can be more intelligent than the conventional guidance; it can empower contacts among understudies and educators; it can create participation among understudies, and it can accentuate time on task. As the analyst watched, in the Jigsaw study hall, during class time, understudies occupied with conversations, exercises, critical thinking, and group work.

The consequences of this investigation are in accordance with Aronson, Bridgeman, and Geffner (1978) and Aronson and Bridgeman (1979) who expressed in Jigsaw strategy understudies become dynamic students in the study hall and Cooperative learning advances related learning and has a synergistic structure. Also, this examination loans backing to Al-Salkhi (2015) and Azmin (2016) who affirmed the adequacy of utilizing Jigsaw helpful learning strategy on improving understudies' language learning.

E. Conclusion

The outcomes demonstrated that Iranian EFL students can profit by Jigsaw strategy. In light of the discoveries of the present investigation, it very well may be reasoned that the actualizing of Jigsaw system in educating and learning can deliver positive outcomes since they could ingest understudies in learning English. The constructive outcomes of utilizing Jigsaw system got evident after the treatment. Here, it very well may be guaranteed that accepting guidance through utilizing Jigsaw system can encourage English learning. Jigsaw procedure can make the understudies free.

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and assist them with figuring out how to concentrate in gatherings. As to viability and the significance of Jigsaw system, it is proposed to be actualized in instructive situations.

F. Implications of the Study
The discoveries of the present investigation can achieve some educational ramifications. Through utilizing Jigsaw strategy, the classes become understudy focused. All through Jigsaw system, understudies keep up a functioning job at the focal point of the learning. The training depends on the presumptions that significant collaboration among peers empowers information building and that educators can give all the more opportune and customized direction and input during in-class action. Jigsaw method energizes helpful learning among the understudies and this participation can prompt effective and important learning. The Jigsaw method puts the obligation of learning on the leaners' shoulders and places the educator in the job of the "facilitator" who works with the understudies to control them through their individual learning encounters. From educational point of view, this investigation reveals insight into the significance of a learning domain that empowers dynamic and strong collaboration in study halls. It additionally adds to thinking about how nature for dynamic learning can be better accomplished by joining Jigsaw system in instructive practices.

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