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# The effect of cooperative reading strategies on improving reading comprehension of Iranian university students

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# Abstract

The aim of the study was investigating the effect of cooperative reading strategies on improving reading comprehension of Iranian university students. Subjects were 60 male university students in Babol technical center, Iran. They were randomly assigned into two groups: The experimental group using cooperative reading strategies and the control group using a traditional method of instructions. Training was 16 sessions, three hours each session. Statistical results revealed that the experimental group did much better than the control group and consequently cooperative reading strategies were effective on improving reading comprehension of Iranian university students.

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Keywords: Cooperative Reading strategies, Reading Comprehension, EFL

# 1. Introduction

It is a fact that since reading plays an important role in getting information and knowledge from original resources, foreign language teachers should attribute importance to teaching reading comprehension in their classes. This paper provides one experiment of teaching cooperative reading, outlines cooperative reading strategies by several researches, and emphasizes the importance of cooperative reading strategies in teaching reading comprehension in Iranian universities. The application of cooperative learning (CL) to classroom teaching finds its root in the 1970s when United States began to design and study cooperative learning models for classroom context (Kessler, 1992).

Now CL is applied in almost all school content areas and, increasingly, in college and university contexts all over the world (Johnson & Johnson, 1989). CL is defined as instruction that involves teams

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of students working together towards a common goal under the following conditions: positive interdependence, individual accountability, face-to-face primitive interaction, appropriate use of collaborative skills, and group processing (Felder & Brent, 1994).

# 2. Rationale for Cooperative Learning

While there are many and varied teaching strategies, there is a specific need for cooperative learning. As our society and economy continually grow and transform, there is a greater need for adequate communication of information. If schools and universities are to keep up with society and produce effective self-sufficient citizens, learning must take place in a manner that promotes higher thinking and communicating skills. The primary goal of the educational system is to develop productive citizens, and an assessment of our societal trends will show an urgent need for the training that cooperative learning provides (Kagan, 1994).

# 3. Research Question and Hypothesis

This study aimed to answer the following question pertaining to the effect of cooperative reading strategies on improving reading comprehension:

• Can cooperative reading strategies affect the improvement of reading comprehension of Iranian non-English major university students?

This research study investigated the following null hypothesis:

• Cooperative reading and group working will not have a significant impact on learning reading comprehension on non-English major university students so that learning gains will not be significantly higher when participants collaborate to each other to learn a text.

#### 4. Review of the Related Literature

"Cooperative learning is instructional groups to help one another master academic content." (Slavin, 1995). "They are a team whose players must work together in order to achieve goals successfully." (Brown, 1994). According to Johnson & Johnson (1989), "cooperation is not assigning a job to a group of students. On the contrary, cooperative learning is a teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject". According to Brent and Felder (1994), "there are many effective methods of cooperative learning. It is imperative that teachers who promote cooperative learning in their classrooms have clear goals for their students to accomplish and define appropriate procedures for working together." For Cooperative Reading the body of research concerned with the importance of engagement and intrinsic motivation in the development of effective readers was examined (Cambourne 1995; Deci & Ryan, 1992; Au, 1997). The research indicates that intrinsic motivation is essential to reading engagement and engagement in learning to read involves having a clear purpose, taking responsibility for learning and seeing oneself as a potential reader. According to (National Reading Panel, 2000), "students who engage in cooperative learning gain more control over their learning and social interactions with peers." In addition, "cooperative learning helps students develop interpersonal skills, independence and selfconfidence" (Johnson & Johnson, 1989). "The teacher's role in cooperative reading instruction is more of a coach, guide, or facilitator, than a knowledge teller. Therefore, although the teacher maintains control over reading group composition, classroom arrangement, materials, task structure, and goals, both the role of the student and the role of the teacher change considerably in this setting" (Johnson & Johnson, 1989).

# 5. Advantages of CL

The following list can be outlined to indicate the advantages of CL in the classroom: Students should take an important role in choosing how and what to learn and monitoring their own learning; positive interdependence; individual accountability; face to face primitive interaction; social skills and group processing; equal opportunity for success; increased intrinsically motivation; less frustration and less anxiety; and taking responsibility for learning

# 6. Methodology

#### 6.1. Participants

The subjects were Iranian learners studying in Babol technical college, Iran. 60 male students participated in this study chosen from among 120 students. They were all non-English major students who were randomly assigned in two groups, the control group and the experimental group through administrating a Nelson test. Each group consists of 30 students.

# 6.2. Instruments and Procedure

6.2.1. Nelson test: It was given to the students to check their general language proficiency of two groups and to homogenize the subjects

6.2.2. The pre-test: The piloted pre-test was given to the groups in order to assure the homogeneity of the two groups.

6.2.3. Treatment: The experimental group received cooperative reading strategies during sixteen sessions. Each session took three hours. They took active role as code breaker, text participant, text user, text analyst and they used different strategies such as Think, Pair, Share, Round Robin, Roundtable, team jigsaw and number head together during the class.

*6.2.4. The post-test:* After sixteen sessions teaching reading to both experimental and control groups. Both groups took part in the post test to find out the differences between them.

#### 6.3. Design

Since real random selection of the subjects was possible, the study followed the true-experimental design with the help of pre-test, post-test pattern.

# 7. Data Analysis and Results

# 7.1. Nelson Test Results

An independent t-test was run to compare the mean scores of the experimental and control groups on the Nelson test in order to check their general language proficiency. The t-observed value is .25 (Table 1). This amount of t-value at 58 degrees of freedom is lower than the critical t-value, i.e. 2. So it can be concluded that there was not any significant difference between the mean scores of the experimental and control groups on the NELSON test. That is to say, they enjoyed the same level of general language proficiency.

Levene's Test for Equality of Variances			t-test for Equality of Means						
					Sig.			95% Confidence Inte	erval of the
					(2-	Mean	Std. Error	Difference	
	F	Sig.	Т	df	tailed)	Difference	Difference	Lower	Upper
Equal variances assumed	.15	.902	.251	58	.803	.30000	1.19650	-2.69505	2.09505
Equal variances not assumed			.251	57.991	.803	.30000	1.19650	-2.69506	2.09506

Table 1. Independent t-test NELSON Test by Groups

The descriptive statistics for the two groups are presented in Table 2. The mean scores for the experimental and control groups are 24.30 and 24.60 respectively.

Table 2. Descriptive Statistics Nelson Test								
Group	Ν	Mean	Std. Deviation	Std. Error Mean				
Experiemntal	30	24.3000	4.66203	.85117				
Control	30	24.6000	4.60584	.84091				

It should be note	ed that the two gro	ups are also ho	mogenous in ter	rms of their v	ariances. The	F = .01 has	3
a probability of .90	which is much high	gher than the sig	gnificance level	proposed by	the researche	ers, i.e05.	

# 7.2. Pre-test Results

An independent t-test was run to compare the means scores of the experimental and control groups on the pre-test. The t-observed value is 1.01 (Table 3). This amount of t-value at 58 degrees of freedom is lower than the critical t-value, i.e. 2.

Levene's Test for Equality of Variances			t-test for Equality of Means							
					Sig.			95% Confidence Inte	erval of the	
					(2-	Mean	Std. Error	Difference		
	F	Sig.	Т	df	tailed)	Difference	Difference	Lower	Upper	
Equal variances assumed	1.240	.270	1.010	58	.317	2.03333	2.01265	-6.06209	1.99543	
Equal variances not assumed			1.010	32.719	0.320	2.03333	2.01265	-6.12944	2.06277	

Table 3: Independent t-test Pretest by Groups

Based on these results, it can be concluded that there was not any significant difference between the mean scores of the experimental and control groups on the pre-test.

The descriptive statistics for the two groups are presented in Table 4. The mean scores for the experimental and control groups are 8.6 and 10.63 respectively.

Group	N	Mean	Std. Deviation	Std. Error Mean
Experiemntal	30	8.6000	2.71141	.49503
Control	30	10.6333	10.68510	1.95082

Table 4: Descriptive Statistics Pretest

It should be noted that the two groups are also homogenous in terms of their variances. The F = 1.24 has a probability of .27 which is much higher than the significance level proposed by the researchers, i.e. .05.

#### 7.3. Post-test Results

An independent t-test was run to compare the means scores of the experimental and control groups on the post-test. The t-observed value is 5.98 (Table 5). This amount of t-value at 58 degrees of freedom is higher than the critical t-value, i.e. 2.

Levene's Test for Equality of Variances			t-test for Equality of Means							
					Sig.			95% Confidence Interval of the		
					(2-	Mean	Std. Error	Difference		
	F	Sig.	Т	df	tailed)	Difference	Difference	Lower	Upper	
Equal variances assumed	2.246	.139	5.987	58	.000	3.66667	.61239	2.44084	4.89249	
Equal variances not assumed			5.987	54.122	.000	3.66667	.61239	2.43897	4.89437	

Table 5: Independent t-test Posttest by Groups

Based on these results, it can be concluded that there is a significant difference between the mean scores of the experimental and control groups on the post-test. Thus the null-hypothesis is rejected.

The descriptive statistics for the two groups are presented in Table 6. The mean scores for the experimental and control groups are 14.80 and 11.13 respectively.

Group	Ν	Mean	Std. Deviation	Std. Error Mean
Experiemntal	30	14.8000	2.67040	.48755
Control	30	11.1333	2.02967	.37056

#### Table 6: Descriptive Statistics Posttest

It should be noted that the two groups are also homogenous in terms of their variances. The F = 2.24 has a probability of .13 which is much higher than the significance level proposed by the researcher, i.e. .05.

It should be noted that the two groups are also homogenous in terms of their variances. The F = 2.24 has a probability of .13 which is much higher than the significance level proposed by the researcher, i.e. .05.

# 8. Conclusion

The results show that students who have opportunities to work collaboratively, learn faster and more efficiently, have greater retention, and feel more positive about the learning experience.

The result of the study may be beneficial to junior and senior high school teachers and universities instructors. It encourages them to use more student-centred activities and motivate the students to participate in classroom activities. These strategies help students to have less anxiety when they take part in class activities.

Textbook writers will also benefit from the result of this study. They can embody some parts of cooperative strategies in their books. In this way they can help the students to read and comprehend the reading contexts more efficiently. They can also encourage them to use cooperative reading strategies.

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