



Efficacy of Cooperative Learning Strategy on Fifth Graders' Achievement of English Language Tests in Tafila Directorate of Education

Mohammad Al.qomoulⁱ

Dept. of Curricula and Instruction
Tafila Technical University, Jordan.

Abstract

The study aimed at investigating the impact of cooperative learning strategy on fifth graders' achievement of English language tests in Tafila Directorate of Education. The subject of the study includes all the fifth graders in the public schools in Tafila Directorate of Education. The sample of the study consists of (60) male and female students chosen randomly from four public schools in Tafila Directorate. After implementing the experiment, the researcher collected the data and analyzed them. Based on the findings of the study, the researcher figured out a number of suggestions and recommendations which may be beneficial for all those who are interested in teaching-learning process, either, individual or institutions.

Keywords: Achievement, Cooperative Learning Strategy, Fifth Graders, Basic Stage.

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INTRODUCTION

Cooperative learning process emerged as a remarkable strategy of instruction in the western world at the beginning of the twentieth century, when John Dewey presented it to teach social studies to achieve curriculum objectives efficiently. During the eighties and nineties of twentieth century, cooperative learning was highly emphasized by many educators' studies which assured its positive affection on the learners' achievement in different social and academic subjects. Cooperative learning could be an effective substitution to many conventional methods of

instruction which were dominated on the field of education for almost 150 years (Alqahtani, 2000).

Cooperative learning as a universal concept is considered to one important method of instruction in which a learner is being able to learn through presenting the material to other learners or learning from others. Cooperative learning model includes five main elements as summarized by (Kupenzki & Maxwell, 2012):

- Positive learning among group members of cooperative learning.
- Each learner is individually responsible for his learning.
- Direct interaction among learners to enhance social communication.
- Utilizing social skills effectively among learners.
- Presentations should be done collectively.

Cooperative learning strategy focuses mainly on a learner as a centre of instructional process. It urges learners to be active and effective all the time in their learning. It also pushes the learners to increase their performance to gain more and improve their experiences and skills to acquire different knowledge during the teaching-learning process. Cooperative learning is based mainly on team-work and cooperation among learners. Cooperative learning means to exchange views and ideas among learners till they reach satisfaction of the presented material in a period of time. Cooperative strategy supports learners to become active participants in the classroom discussion. A teacher sometimes, shifts to this strategy in an indirect way by dividing the students into groups working together for better learning. Through using cooperative learning, each member in a group is responsible for his learning (Nazzal, 2009).

Cooperative learning is classified as one form of efficient learning, since it facilitates learning process and gives the students the freedom to teach one another. This method of teaching supports students to acquire knowledge and keep it for a long time. A number of studies pointed out that cooperative learning is the ability achieve deeper understanding of the material in a learning class. It also consolidates critical thinking, enhances problem solving and promotes students' achievements in comparison with conventional methods of instruction. So, cooperative learning is a modern method of instruction which sustains students' performance in different subjects, besides, it motivates students in all stages to learn (Riely & Anderson, 2006).

Cooperative learning is based on such a way that improves and develops academic skills and strengthens positive social relations among the students to solve their problems and avoid conflicts. Learning in this way, creates a type of correspondent groups with better cooperation. Cooperative learning classes fulfill the students' needs, satisfy their academic needs and care upon their individual differences (Patrick, 2012).

Cooperative learning has been defined by Johnson and Johnson (1994) as a situation in which there is a positive interdependence among student's goal attainment; therefore, students perceive that they can only reach their learning goals if all the members of the group achieve the learning goals as well. Cooperative learning is an instructional methodology which splits class members into small groups in order for them to learn assigned material and make sure that all members of the group master the assignment (Johnson & Johnson, 1994).

Cooperative learning has been around along time. It will probably never go a way due to its rich history of theory, research, and actual use in the classroom. Markedly different theoretical perspectives (social interdependence, cognitive development and behavioral learning) provide a clear rationale as to why cooperative efforts are essential for maximizing learning and

ensuring healthy cognitive and social development as well as many important instructional outcomes. Hundreds of research studies demonstrate that cooperative efforts result in higher individual achievement than do competitive or individualistic efforts. Educators use cooperative learning throughout North America, Europe, and many other parts of the world. This combination of theory, research, and practice makes cooperative learning one of the most distinguishable of all instructional practices (Johnson & Johnson, 1991).

Study Problem

English is actually the second language here in Jordan. Teachers have to support our students to acquire it efficiently in order to be used in real-life situations. So, they have to adopt cooperative learning strategy, since it is one of the best to achieve this goal. Learning English in Jordan nowadays starts from grade one. So, teachers of English are required to be positive, active and cooperative all the time. They have to find creative methods of instruction to gain better effective learning. Most of the recent studies emphasized on the fact that cooperative learning strategy as an innovative method for teaching various school subjects. Therefore, there is no other choice for EFL teachers except choosing most creative methods of instruction which urge students to be active and call their attention to English language activities as a team work. English Language classes are the best among other subjects to use cooperative learning strategy. English language classes should be based on positive interaction among the students, since most of English textbooks activities are joint work, which provides proper opportunities for the students to be innovative or creative learners. Cooperative learning may encourage students to exchange experiences, views, creative ideas, and motivate them to practice dialogue method in their daily affairs (Marcos, 2002).

Study Questions

The present study attempts to answer the following three questions:

- Are there any significant differences in the achievement mean scores of fifth graders on English language tests attributed to the effect of using cooperative learning strategy?
- Are there any significant differences in the achievement mean scores of fifth graders on English language tests attributed to sex variable?
- Are there any significant differences in the achievement mean scores of fifth graders on English language tests attributed to the interaction between method of instruction and sex?

Study Significance

The importance of the present study is implied in the fact that it attempts to discover the effect of using collaborative strategy to increase fifth graders' achievement on English language tests in the public schools in Tafila Directorate of Education. Nazzal (2009) revealed that cooperative learning strategy is able to raise students' achievement in different subjects, especially those which highly dependent on social interactions between the members of groups. The study of the effect of cooperative learning on the students' achievement may be of great benefit for EFL teachers and those who design English syllabuses for the basic stage students here in Jordan and

elsewhere. Using collaborative learning in English classes is based mainly on inconsistent groups of students to improve their abilities and to motivate them to be more effective in their learning.

Study Objectives

Cooperative learning is considered to be the most appropriate strategy in teaching and learning English, since it is based on interaction between the students to learn. So, the present study attempts to achieve the following objectives:

- Investigating the effect of cooperative learning strategy on fifth graders' achievement.
- Recognizing the abilities of the EFL teachers to utilize collaborative learning for improving students' achievement in general and fifth graders in particular.

Study Limitations

- The study is restricted to fifth graders in Tafila Directorate of Education.
- The experiment was implemented during the second term of the academic year: 2017-2018.
- The achievement test used for the experiment was constructed by the researcher.

Definition of Terms

- Cooperative learning: One modern method of instruction, students in it are divided into small groups ranging from 2-6 students working together in special formation. Each member in a group has a definite role, but all members working together to achieve the targeted goals.
- Basic stage: A stage of education in Jordan, where students are obliged to be at school for ten years. It is a compulsory stage; students are not allowed to leave school before finishing it.
- Fifth graders: Students who finish five years at school and study English from grade one.

LITERATURE REVIEW

Cooperative Learning Methods

Cooperative learning is one of the most remarkable and fertile areas of theory, research and practice in education. Cooperative learning exists when students work together to accomplish shared learning goals (Johnson & Johnson, 1993). Each student can then achieve his or her learning goal if only the other group members achieve theirs (Deutsch, 1992) In the past three decades, modern cooperative learning has become a widely used instructional procedures in pre-schools through graduate school levels, in all subject ideas, in all aspects of instruction and learning, in nontraditional as well as traditional learning situations, and even after school and non-school educational programs. There is board dissemination of cooperative learning through teacher preparation programs, in-service professional development, and practitioner publications. The use of cooperative learning so pervades education that is difficult to find textbooks on instructional methods, teacher's journals, or instructional methods that do not mention and utilize

it. While a variety of different ways operationalizing cooperative learning have been implemented in schools and colleges, there has been no comprehensive view of the research evidence validating the cooperative learning methods (Voygotsky, 1978).

The widespread of cooperative learning is due to multiple factors. Three of the most important are that cooperative learning is clearly based on theory, validated by research, and operationalized into clear procedures educators can use. First, cooperative learning is based solidly on a variety of theories in anthropology, sociology, economics, political science, psychology, and other social sciences. In psychology, where cooperative has the most intense study, cooperative learning has its roots in social interdependence, cognitive developmental and behavioral learning theories. Second, the amount, generalizability, breadth, and applicability of the research on cooperative, competitive and individualistic efforts provide considerable validation of the use of cooperative learning, perhaps, more than most of other instructional methods. There are hundreds of studies validating the effectiveness of cooperative over competitive and individualistic efforts (Johnson & Johnson, 1989). The third factor contributing to the widespread use of cooperative learning is the variety of cooperative learning methods available for teachers use, ranging from very concrete and prescribed to very conceptual and flexible. Cooperative learning is actually a generic term that refers to numerous methods for organizing and conducting classroom instruction. Almost any teacher can find a way to use cooperative learning that is congruent with his or her philosophies and practices. So many teachers use cooperative learning in so many different ways that the operationalization cannot all be listed here. In assessing the effectiveness of specific cooperative learning methods, however, there are a number of “research-developers” who have developed cooperative learning procedures, conducted programs of research and evaluation of their methods, and then involved themselves in teacher training program that are commonly credited as the creators of modern-day cooperative learning (Cohen, 1994).

According to Johnson and Johnson (2009) cooperative learning is more than just asking students to sit and work together. Research has identified some components that mediate the effectiveness of cooperative learning such as: positive interdependence, which allows students to perceive that they are linked with each other in such a way that one cannot succeed unless everyone succeeds, individual accountability, which gives each member of the group a sense of personal responsibility toward goal achievement, promotive interaction, which takes place when students facilitate each other’s efforts to learn through exchanging resources, help, motivation and points of view, interpersonal and small-group skills, which means that students must be taught social skills for high quality cooperation, and group processing, which exists when group members discuss how well they are achieving their goals and maintaining their working relationships (Johnson & Johnson, 2009).

Cooperative learning has also been closely related to concepts such as collaborative learning or group learning. The broadest definition of collaborative learning is that it is a situation in which two or more people learn something together (Dillenbourg, 1999). Similarly group learning has been defined as the physical placement of students into groups and the usage of specific instructional strategies for the purpose of learning (Lou et al., 1996). For the purpose of this view, cooperative learning is defined as: students working together in small groups which allow everyone to participate in group tasks that have been clearly structured and defined, this definition is broad and encompasses the concepts of collaborative as well as group learning (Cohen, 1994).

Collaborative learning differs from traditional whole-class instruction in which students are taught as a single large group by a teacher (Lou et al., 1996). According to the author, traditional whole-class encourages teacher expansions over peer interactions, and encompasses benefits such as uniformity of instruction, since students are exposed to the same type of information and learning methodology (Lou et al., 1996). Cooperative learning in contrast favors the division of whole classes into small group-work, in order for students to challenge their individual knowledge and skills developing structured group tasks. Research on cooperative learning has paid special attention to the effects of cooperative learning in comparison to traditional teacher centre instruction (Johnson & Johnson, 1994).

Related Studies

Aydin and Alakus (2009) conducted a study which aimed at investigating the impact of cooperative learning strategy on the students' achievement in Art Education and their attitudes towards the course. The sample consisted of 94 male and female students chosen randomly from the basic schools in Ankara-Turkey. It was divided into two groups (experimental and control). The experimental group was taught by cooperative learning strategy and the control group taught by traditional method. An achievement test was administered before and after the experiment to measure the effect of cooperative learning strategy on the students' achievement. The findings of the study revealed that there were significant differences in the mean scores of the students on the post test for the benefit of the experimental group. The significance was attributed to the method of instruction. The findings pointed out also that cooperative learning strategy was efficient in changing the students' attitudes towards Art Education.

Kasnarah (2009) conducted a study aimed at investigating the impact of cooperative learning strategy via computer on the immediate and delayed achievement in technical education course comparing it with conventional methods of instruction. The sample was 90 students chosen randomly at Um-Elqura University in Mecca. The students were distributed into three groups, 30 students in each group, according to the method of instruction (cooperative learning, microteaching and traditional method). A computer program and an achievement test were both employed to measure the effect of each method on the achievement of the students. The findings of the study revealed no significant differences on the mean scores of the immediate achievement of the students attributed to the method of instruction, but it revealed significant differences in the mean scores of the experimental group of cooperative learning students' achievement in comparison with the achievement of the students who used microteaching and traditional methods. The significance was in favor of the cooperative leaning group.

Nazzal (2009) conducted a study aimed at recognizing the effect of cooperative learning strategy on the achievement of the students in the course of methods of teaching and general training at Al.quds Open University-Dubai, in the academic year: 2003-2004. The sample of the study was 30 students chosen randomly and distributed into two groups (experimental and control) 15 students in each group, then the researcher constructed an achievement test of multiple choice type includes 25 questions. The test was administered before and after the experiment. The findings of the study showed significant differences in the mean scores of the post test for the benefit of experimental group over control group.

Ajaja (2010) conducted a study investigating in it the impact of cooperative learning strategy on the secondary students' achievement in integral science. The major findings of the study included: a significant higher achievement test scores of the students in cooperative

learning group than those in traditional classroom; a significant higher achievement test scores of the students varying abilities in cooperative learning group than those in traditional classroom; a non-significant differences in achievement test scores between the male and female students in the cooperative learning group and non-significant interaction effect between sex and ability, sex and method, ability and method and among method, sex and ability achievement.

Majoka et al. (2011) conducted a study which revealed that the experimental group outscored the control group on post-test results. Cooperative learning appeared to be equally effective for teaching social studies to high-achievers, average-achievers and low-achievers at elementary level.

Bilasanmi (2012) conducted a study which revealed that students in two cooperative learning strategy groups had higher immediate and delayed academic achievement mean scores than the students in the conventional-lecture group. Cooperative learning strategies were found to be more effective in enhancing students' academic achievement and retention in basic science more than conventional lecture.

Wichadee and Orawiwatnakul (2012) conducted a study aimed at defining the effect of cooperative learning strategy on the achievement of the students in English language courses in Thailand. The results of the study assured the impact of cooperative learning on increasing the achievement of the learners, especially those who study English as a foreign language, mathematics, science and social studies. The study emphasized the use of cooperative learning strategy in teaching different courses since it considered being one of the most effective strategies in education.

Al-Kaabi (2016) conducted a study which revealed that collaborative learning had no beneficial effect on the students' proposal writing scores. Other than that, collaborative learning had no effect on exams results including pre-test, post-test, midterm and final test.

Yapici (2016) conducted a study aimed at investigating the effect of blended cooperative learning environment on biology teaching, classroom community sense, academic achievement and satisfaction. The results obtained revealed that the students' classroom community sense developed and they had a high level achievement and satisfaction.

Zamri (2017) conducted a study aimed at investigating the effect of cooperative learning on students' achievement and motivation in learning Malay language. The main findings showed that the average mean for students' perception in pre-test for treatment group are at medium level. Post-test for treatment group are at high level, while for control group are at medium level. Students' motivation after post-test showed average mean for the treatment group and control group. Students' motivation showed significant mean differences towards Malay language between cooperative group and traditional group. Besides, the findings also showed that students' perception from treatment group towards cooperative learning are at medium high level. Result of the study indicated that students give positive respond towards the effectiveness of cooperative learning in schools. Thus, the result of the study is important to see the effectiveness of cooperative learning to improve students' achievement and motivation.

METHODOLOGY

The researcher applied the experimental approach in the present study; dividing the sample of the study to experimental and control groups; taking into account the sex variable in each group according to representative design (2x2) method of instruction; (cooperative learning, traditional method) and sex (male and female) students. The subject of the study included all the fifth

graders; males and females in the public schools in Tafila Directorate of Education during the second term of the academic year: 2017-2018. To achieve the objective of the preset study, four cooperative state schools were chosen; two for males and two for females. The sample consisted of 60 male and female students chosen randomly to represent the subject of the study. Table 1 below illustrates the distribution of the sample.

Table 1: Distribution of the Sample of the Study

School	Group/Method	Sex	N	Total
Omar Bin Alkhatib	Experimental	Male	15	30
Amoria	Cooperative	Female	15	
Khalid Bin Alwaleed	Control	Male	15	30
Alhanana	Traditional	Female	15	
				60

Data Processing

After collecting the data, it was processed into the computer using (SPSS) program. The analysis process went as follows:

- Calculating means, standard deviations, and analysis of covariance for the pre-test to be sure of the groups' equality.
- Calculating means, standard deviations and t-test to answer the questions of the study.

RESULTS AND DISCUSSION

To accomplish the present study, the researcher did the following:

- Chose four units from "Students' Book" which used for the experiment.
- Made a content analysis for the chosen units and adapted them to be fit with cooperative learning strategy and traditional method of instruction.
- The sample was then chosen randomly from the subject of the study.
- The researcher assembled with the cooperative teachers and explained the plan of teaching with them.
- To gain the equality between the groups (experimental and control), the researcher administered the test on the two groups before the experiment. Means and standard deviations were calculated as illustrated in table 2 below.

Table 2: Mean and Standard Deviation of the Students' Achievement According to Method and Sex

Method	Sex	Means	SD
Cooperative	Male	13.93	9.50
	Female	14.87	8.76
	Total	14.40	8.99
Traditional	Male	14.87	8.53
	Female	13.80	7.41
	Total	14.33	7.87
Total	Male	14.40	8.88
	Female	14.33	7.99
	Total	14.37	8.38

To show significant differences between mean scores, analysis of covariance (ANCOVA) was used to calculate means and standard deviations. Table 3 below shows analysis of covariance of students' achievement according to method and sex and the interaction between method and sex.

Table 3: Analysis of Covariance of the Students' Achievement

Covariance	Total of Squares	DF	Square Means	F-Value	Level of Significance
Method	.067	1	.067	.001	.976
Sex	.067	1	.067	.001	.986
Sex*Method	15.000	1	15.000	.203	.654
Error	41.28.800	56	73.729		
Total	16528.000	60			

Table 3 shows no significant differences at the level of significance ($\alpha=0.05$) attributed to the effect of method of instruction as the value of F (.001) at the level of (0.976), and there is no significant differences at the level of ($\alpha=0.05$) attributed to sex variable as F value (0.001) at the level of (0.986). This means that the two groups (experimental and control) are equal.

The researcher assembled with the cooperative teachers and trained them to employ cooperative learning strategy in their instruction to experimental group by dividing the students into small groups, allocate time for the work of each group, and the role of each member in the group, explaining the differences between cooperative learning and learning by traditional methods.

The researcher and the cooperative teachers then assembled with the students in the experimental group and explained the working plan for them, urging them to finish the task in order to achieve the targeted goals.

The present study attempts to answer the first question: "Are there any statistical significant differences at the level of ($\alpha=0.05$) in the achievement of fifth graders attributed to the method of instruction (cooperative-traditional)?"

To answer the first question, the means and standard deviation are calculated for the grades of the students. T-test was also used to explain the differences in the students' grades according to method of instruction (cooperative-traditional). Table 4 below illustrates this.

Table 4: Means, Standard Deviations and T-test for the Students' Achievement

Test	Group	Means	SD	T Value	Significance
Post test	Control	29.70	6.83	5.3	0.000
	Experimental	42.63	11.43		

As table 4 above shows, there are statistical significant differences at the level of ($\alpha=0.05$) between the experimental and control groups for the students' achievement on the post test. The significance is in favor of the experimental group. The means of the experimental group as shown in the table is (42.63), and the means of the control group is (29.70), the difference is (12.93). This result advocates the fact that using cooperative learning strategy is efficient in increasing the students' achievement and a greater effect on improving the students study skills to acquire the language. Cooperative learning strategy has its apparent effect on the students' thinking, social communication and ability to exchange experiences and ideas. This strategy puts the students in the centre of the teaching-learning process. It urges the teacher to work as a guide and facilitator for the educational process. All these features make cooperative learning has its positive effects on the learners, increase their achievement and make them ready to learn.

Findings related to the second question: "Are there any statistical significant differences at the level of ($\alpha=0.05$) in the achievement of fifth graders attributed to sex variable?"

To answer the second question, the means, standard deviation and t-test for the achievement of the students (males and females) were all calculated as shown in table 5 below.

Table 5: Means, Standard Deviation and T-test for the Students' Achievement According to Sex Variable

Test	Sex	Means	SD	T Value	Significance
Post-test	Male	34.47	6.73	1.157	0.25
	female	37.87	14.61		

As table 5 shows, there are no statistical significant differences at the level of ($\alpha=0.05$) for the students' achievement attributed to sex variable. The means of males is (34.47) and the means of female is (37.87). The difference is only (2.6) which reveal no significance among the students. The reason for this result may be attributed to the fact that male and female answers were almost correspondent. The result promotes the fact that utilizing cooperative learning strategy is highly fit for both genders (males and females), since it provides equal opportunity for the students to work together cooperatively, which is not available when applying traditional methods of instruction.

Findings related to third question: "Are there any statistical significant differences at the level of ($\alpha=0.05$) in the achievement of fifth graders attributed to the interaction between method of instruction and sex?"

To answer the third question, means and standard deviation of the students' achievement were calculated according to method and sex variables. Table 6 below explains this result.

Table 6: Means and Standard Deviation for the Students' Achievement According to Method and Sex

Group	Sex	Means	SD
Experimental	Male	35.933	6.192
	Female	49.333	11.751
Control	Male	42.633	11.472
	Female	33.000	7.131
Total	Male	26.400	4.747
	Female	29.700	6.833
	Total	34.466	6.729
	Female	37.866	14.613
	Total	36.166	11.409

To account the significances between means of the achievement test according to method, sex and interaction between method and sex (ANCOVA) was employed as shown in table 7 below.

Table 7: Analysis of Covariance for the Students' Achievement According to Method, Sex and Interaction between Method and Sex Variables

Covariance	Sum of Squares	F Degree	Means of Squares	F Value	Significance
Method	2509.000	1	2509.000	40.170	0.000
Sex	173.400	1	173.400	2.776	0.101
M. x Sex	1500.000	1	1500.000	24.015	0.000
Error	3497.867	56	62.462		
Total	86162.000	60			

Table 7 above shows clear significance at the level of ($\alpha=0.05$) in favor of cooperative learning strategy. It reveals no significance differences due to sex variable, but it reveals significant differences due to the interaction between method and sex as the amount of (F value) is (24.015) at the level of (0.000). The significance may be attributed to the female students' nature who favorably disposed to social effective interaction with the same group. Female students are also more self-controlled, less-troubled and quieter than male students.

Generally, analysis of data in the present study revealed significant differences between the two groups (experimental and control). Significances were in the advantage of experimental group who used cooperative learning strategy. From my own experience as a teacher of English language for more than 15 years, the researcher emphasizes on the fact that cooperative learning strategy is quite effective inside the classroom, especially in teaching English language skills. It provides the students with the opportunity to practice English functionally by exchanging views and experiences, urging them to work enthusiastically together and sustain their creative abilities.

When revising some of the other previous studies, it is apparently clear that cooperative learning strategy has its positive impact on students' achievement in different subjects. That is also clear in (Wichadee & Orawiwatnakul, 2012) study which assured the effect of cooperative learning strategy in increasing the students' achievement in subjects such as: English courses for non-native speakers, mathematics and science, social studies and art education. Nazzal (2009) study revealed positive results based on utilizing cooperative learning strategy instruction. Kasnarah, (2009) study revealed significant differences on the students' achievement that used cooperative learning strategy via computer based instruction. Aydin and Alkus (2009) study confirmed that using cooperative learning strategy has greater effect on the students'

achievement in Art Education and its positive effect on students' attitudes towards Art Education.

However, the results of the present study are extensively correspondent with the results of (Aydin & Alakus, 2009) study which revealed significant differences between the means of the students' achievement on the post test. The significance was in favor of the experimental group which was attributed to the method of instruction. The findings of the present study are also consistent with some of the other revised studies such as: (Ajaja, 2010, Bilasanmi, 2012, Yapici, 2016, Majoka, 2011, Zamri, 2017) all of them assured the effectiveness of employing cooperative learning strategy in instruction.

CONCLUSION

In light of the present study's data analysis, the researcher concluded that:

- Utilizing cooperative learning strategy has its effective impact on students' achievement.
- No significant differences were found in the students' achievement attributed to sex variable.
- There were significant differences in the students' achievement attributed to the interaction between method of instruction and sex variables. This may be due to the social nature of female students who prefer effective interaction.

Recommendations

Depending on the previous results, the researcher recommends the following:

- Conducting more studies which may investigate the impact of cooperative learning strategy on other variables such as: creativity, critical thinking and other stages of education.
- Urging teachers in general and EFL teachers in particular to use more effective and modern methods in their instruction.
- Applying cooperative learning strategy on other courses and other grades.

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ⁱ **Dr. Mohammad Al.qomoul** is a lecturer in the Department of Curricula and Instruction, Tafila Technical University, Jordan. He can be reached via email at qomoul@yahoo.com.
Jordan. He can be reached via email at