The Influence of Jigsaw Technique in Teaching ESP for Graduated Students at College of Physical Education for Women

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Abstract

The current research is an attempt to investigate experimentally the influence of using a jigsaw technique in teaching ESP for graduated student o their speaking achievement. This technique is intended to improve students' speaking skill through providing them with opportunities to choose their material, express information, describe pictures, comment on the information, argument… and giving opinions.

The sample of the research is M.A students at College of Physical Education for Women, University of Baghdad of the academic year 2012-2013.
It is hypothesized that there are no significant differences between the pre test (includes three observations) and post test (included three observations).

To fulfil the aim of the research an experiment has been designed with one group of (20) chosen in purpose from the M.A students.

The researcher herself is taught the group. The first course of the study is included three observations. While the second course of the study is applied jigsaw technique with the same group. The experiment lasted four months. In this period, there are six observations. Three observations are in pre tests as well as in the post tests. It has used the observation tool for collecting and scoring the speaking skill of the sample. For the reliability of the observation, it has applied rating sheet, Baker (1989) criteria, recording the observations.

After analyzing the results statistically, iIt has been found that there are significant differences between the pre and post tests. This indicates that using jigsaw technique in teaching speaking skill is more effective than using the traditional method. Accordingly the null hypothesize has been rejected.

Finally, College of Physical Education are recommended to use a jigsaw technique in teaching speaking skill. And other studies are needed for modern methods and techniques in teaching English language as a foreign language.

Section One
Introduction
1.1 The Problem and Its Significance

Learning speaking in a foreign language and oral production is considered to be one of the most difficult aspects of language learning. Many students who were well trained in using language structure have found themselves completely at a loss in speaking or conducting oral production(Rivers and Temperly ,1978:34). It happens with any foreign language that the students have learnt and exercised vocabulary and grammar, they can read; but they can not engage in real communication. The possible reason for this absence of practicing in foreign language could be that learners are usually taught language in a way which is no longer adequate. There is a need for a new type of teaching, which provides students with basic ability to use the language, to receive and to convey information.

Key factor in foreign language development is the opportunity given to learners a willingness and need or reason to speak. A possible way of stimulating learners to talk might be to provide them with extensive exposure to authentic language through audiovisual stimuli and opportunities to use the language (Rivers and Temperly ,1978:34).

The other problem lies in the method followed in teaching speaking skill at college specially with graduated students, these methods do not offer the due opportunity for interaction through using English. Thus, this research is an attempt to find out and suggest another suitale way for teaching graduated students speaking skill.

Learning and understanding are not merely an individual processes supported by social context; rather they are the result of a continuous and dynamic negotiation betweeand social context are active and constructive in producing learning and understanding Both the individual and the social setting in which the individual 's activity take place. Both the individual (Nelson-LeGall, 1992:52).

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1.2 Aims of the Research

The present research aims at investigating the influence of using jigsaw technique in teaching English for special purposes for graduated students at the College of Physical Education for Women on the students' speaking skill achievement.

1.3 Hypothesis of the Research

The following null hypothesis will be tested:

There are no statistically significant differences of students' achievement in speaking skill between the pre and post tests .

1.4 Limits of the Research

The following are the major limits of the present research

1-The sample of the students are limited to the College of Physical Education for Women, University of Baghdad during the academic year (2012-2013).

2-Gratuated students (M.A. students) will be the concern of this research.

3-jigsaw technique will be the centre of this research as a basic technique in interactive speaking skill.

1.5 Value of the Research

The value of the research is summed up in the following points:

1- The importance of the current research lies in the fact that using modern language teaching methods, i.e. jigsaw technique , could assist in enhancing students' ability to interact and communicate ideas and opinions that result some mastery of spoken language.

2- jigsaw technique develops higher level of thinking skill. Students working together are engaged in the learning process instead of passively listening to teacher information.

3- Jigsaw can develop oral communication skills. The students work, listen ask questions or comment upon what student has heard(Duman,2003;3).

4-The class atmosphere becomes interesting and enjoyable this leads to motivate the students in learning English (Panitz, 1997;5).

5-In jigsaw students work together to accomplish the same goal.Students' learning goals together instead of working against each other ,they work together to a achieve attainable goal (Lie,2002:2).

6- This research can make some contribution towards improving and supplying ESP in Iraqi Colleges with modern method of teaching

rather than the traditional ones.

1.6 Procedures of the Research

The following procedures are conducted in order to achieve the aim of the research:

1-The researcher will use the observation tool to collect the data of the current research.

2-Applying checklist rating scheme for scoring the pre and post tests of speaking skill for graduated students.

3-Conducting the experiment through the whole academic year of the study.

4-Giving the pre test to the students then post test will be given at the end of the study.

5-Analyzing the results of the research.

1.7 Definition of Basic Terms

1.7.1 Jigsaw Technique

It is as a type of information gap technique, in which group of learners have different information that is needed to put together to reconstruct the whole through class discussion or group interaction (Richards and Schmidt 2002:278). Also, Roger and Johnson (2000,1-6) define jigsaw as "separate teams of students learn various concepts and then teams are reassembled so that each one of the member can be an expert at a different concept". Felder and Brent (1994:10) said that jigsaw is "one of cooperation techniques". It is problem-solving activity by getting students to listen to different chunks of information, the students have share with other the information has acquired in order to build up a complete picture of that particular situation (Mcdonough & Shaw,2003:145). It involves learners combining different pieces of information to form a whole (three individuals or groups may have three different parts of a story and have to piece the story together) (Richards &Rodgers,2001:134).

1.7.2 ESP

It is" an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning" (Hutchison &Waters,1987:19). Also, wilkins (1976:73) holds that learners' needs in special purpose language courses are met with a restricted kind of language in which the vocabulary has a rather specialized character and the grammar is either limited in its rang or has usual distribution.

Section Two

Theoretical Background
2.1 jigsaw

   The jigsaw technique of teaching is aimed at developing the interactions among members of the class, on processes that help them pursue common goals, and on the give and take of information related to those goals. The teacher plays a facilitative role within the classmate, subtly guiding, reflecting, and helping clarify, but not taking dominant directive stance (Chales, 1983:128).

   Ellis (2003:86) informs that there are two types of jigsaw tasks

1-information gap tasks: it involves an exchange of information also the information provided is split,i.e. the learners do not all have the same information. The information are required to complete the task.

2-opinion gap tasks learners are going beyond the information given by supplying their own ideas. The information are shared and it is optional.

Richards and Renandys (2002:209) specified four criteria of Jigsaw activities, they sould:

*be based on authentic or naturalistic source materials

*enable learners to manipulate and practice specific features of language

*allow learners to rehearse, in class, communicative skills they need in the real world, and

*activate psycholinguistic processes of learning.

Jigsaw has been developed within social constructivist school of thought to promote communities of learners that cut across the usual hierarchies of students and teachers (Brown, 2002:46).

Johnson etal . (1994) describe some activities for jigsaw technique, they are;

* group member receives a different piece of information.

*Students regroup in topic groups (expert) composed of people with the same piece to master the material and prepare to teach it.

*Students return to home groups (jigsaw groups) to share their information with each other.

*students synthesize the information through discussion.

*each students produces an assignment of part of group project, or tasks a test, to demonstrate synthesis of all the information presented by all group members.

*this method is very useful in the multilevel class, allowing for both homogeneous and heterogeneous grouping in terms of English proficiency.

*information- gap activities in language teachning are jigsaw activities in the form of pair work. Partners have data with missing information to be supplied during interaction with another partner.

In a jigsaw task, which is a two-way task, individuals have different pieces of information. In order to solve the task, they must orally interact to put the pieces together.i.e (a map task, a picture task, gap- information task) (Gass &Mackey,2005;21).

2.2 Theory of Language

Jigsaw as a technique used in cooperative language learning approach. It has been central to 'interaction' theory of foreign language learning since 1980s. Rivers (1987) defined the interactive perspective in language education; "students achieve facility in using a language when their attention is focused on conveying and receiving authentic message (Richards &Rodgers,2001:21).

2.3 Theory of Learning

Jigsaw advocates draw heavily on the theoretical work of developmental psychologists Jean Piaget (1965) and Vygotsky (1962),both of whom stress the central role of social interaction in learning (ibid: 194).

2.4 Speaking skill

Speaking in a foreign language involves the development of a particular type of communication skill. Levelt (1989) involved four major processes of speaking ; conceptualization, formation, articulation and self-monitoring. Conceptualization is concerned with the content. Formulator is concerned with putting the words and phrases to express the meaning. Articulation involves the motor control of articulator organs. While self-monitoring is concerned with language users being able to identify and self- correct mistakes (Carter & Nunan, 2001:16)

Section Three
Procedures and Methodology
3.1 The Experimental Design

Any new technique cannot be taken seriously unless its efficiency is tested. Therefore to achieve the aim of the research, an observations have been designed to answer the question whether or not this technique is effective in teaching. Christensen (1980: 158) refers to the term "design" as "a plan or strategy conceived in an attempt to obtain an answer to research question".

The research used the " time-series design " (Mackey &Gass, 2005:153). The form of this design is shown in table below:

O¹	O²	O³	Jigsaw Technique	O¹	O²	O³

In this design can overcome some of the problems typical in foreign language research, in which there can be small numbers and noncomparability of individuals at the outset. In addition, the consistency in the effects of the treatment and hence increases the internal validity (Mackey &Gass, 2005:155).Mellow etal. (1996) mentioned for reasons for utilizing this design, they are;

*it is practical, it can be used even with small numbers of participants.

*it reduces the differences among the participants.

*it can be used as a means of exploration and hypothesis generation.

*it provides a rich picture of development (ibid).

So, The same students will be tested as control group on the first course of the study three times. Then the same group will be tested as experimental group on the second course of the study also three times.

3. 2 Population and Sample Selection

The population of the current research is M.A. students at College of Physical Education for Women .The sample of this research consists of 20 students in M.A . stage. The sample has been chosen in purpose because of the limitation of the population of the research.

3.3 Instructional Material

It has been used observation techniques as a tool for collecting the data of the research because it is useful means for gathering in depth information about interactions activities in foreign language research (Mackey &Gass , 2005:186). The observations have applied six times three times before using jigsaw and three times after Appling jigsaw. Also, for the validity of the observation, the research has chosen a rating sheet of observation which is shown in appendix (1). This sheet has used each time of observation.

Also, it has been using sport pictures for testing the speaking skill for the students. By serving as stimuli for oral responses, pictures provide a realistic context for the structural pattern being tested. A real situation is simulated by relating a brief conversational exchange to a picture, by comment on scenes or actions depicted in a series of pictures (Heaton,1975:90).

Weir (1990;77) mentioned some advantages to transfer information according to describe pictures, they are;

1-The task required of candidates is clear,

2-It can be an efficient procedure and one of the few available to get the candidate to provide an extended sample of connected speech which allows the application of a wide range of criteria in assessment; and

3-The value of the technique is dependent on the pictures being clear and unambiguous and free cultural or educational bias.

But in the first course of the study students are given opportunity to speak and express their opinion by giving some sport topics (Olympic games, Single games , team games). The students' oral production are scored according Baker (1989) and by using rating sheet prepared for each observation. Then, jigsaw is applied on the research sample and by using sport pictures. The students are divided in four groups. Each group has chosen a sport picture. Also, each one of the member group is responded for describing the picture to all other students in the class. Each one is given some information by completing all the group the description of the picture is finished . The other students are expressed their opinion about the picture , add some more information, comment , argument… the students are given freely time to express themselves. The same rating sheet is used with the same criteria are used in the first course.

3.4 Construction and Administration of the Experiment

The experiment has started from 3/11/2012. Jigsaw technique has applied on25/1/2013. The experiment has ended on 3/4/2013. The whole period of the experiment has lasted four months.

3.5 Oral Test

The spoken language production is often considered one of the most important skills. But the assessment of speaking ability is difficult, because of its difficult construction. Therefore, instructors as well as researchers avoid examining oral production (Al-Mutuwa &Kailani,1989:163).

The research has been used the observation technique during the discussion and interacting in conducting the oral test. The observation will provide data readily and fully in pronunciation, fluency and to interact information verbally more than in writing (VanDalin,1962;258). The researcher herself has conducted the observations by using the rate sheet and for the reliability of the observations also it has been used recorder.

Reliability is an important characteristic of any test. It refers to the stability and consistency of the measurement of the test scores (Oller 1972;4).

The researcher has used a criteria of re-scoring to increase the reliability of the oral test. Each scoring has scored again after 10 days depending on the tap of recorder. The correlation coefficient is found to be (0.911), (0.899), (0.922),

(0.912), (0.933) , (0.912)   and this is considered a high stable coefficient. See appendix (2).

3.6 Scoring Procedure

The students' responses are evaluated by using the scale suggested by Baker (1989:87) each observation scores from 9-1 mark. The observer used schedule to record the scores as is shown in this Table (1).

9	Expert speaker. speaks with authority on a variety of topics. Can initiate, expand and develop a theme.
8	Very good . maintains effectively her own part of a discussion, maintains and elaborates as necessary. Reveals humor where needed and responds to attitudinal.
7	Good speaker. Presents case clearly and logically and can develop the dialogue coherently and constructively. Rather less flexible and fluent than score 8 performer but can respond to main changes of topic.
6	Competent speaker. Is able to maintain theme of dialogue, to follow topic switches and to use and appreciate main attitude markers. Stumbles and hesitates at times but is reasonably fluent otherwise. Some errors and inappropriate language but these will not impede exchange of view. shows some independence in discussion with ability to initiate.
5	Modest speaker. Although gist of dialogue is relevant can be basically understood. There are noticeable deficiencies in mastery of language patterns and style. Needs to ask for repetition or clarification and similarly to be asked for them. lacks flexibility and initiative.
4	Marginal speaker. Can maintain dialogue but in rather passive manner, rarely taking initiative or guiding the discussion. Has difficulty in following English at normal speed; lacks fluency and probably accuracy in speaking. The dialogue is therefore neither easy not flowing. Nevertheless, gives the impression that she is in touch with the gist of the dialogue even if not wholly master of it . marked L1 accent.
3	Extremely limited speaker. Dialogue is a drawn-out affair punctuated with hesitations and misunderstanding. Only catches part of normal speech and unable to produce continuous and accurate discourse.
2	Intermittent speaker. No working facility; occasionally, sporadic communication.
1/0	Non-speaker. Not able to understand and /or speak.

Baker (1989:87)

Section Four
Data Analysis, Conclusions, Recommendation and Suggestions

Statistical tools are used to analyze the results obtained from the six observations. The mean (X), standard deviation (S.D) and (T) formula are used to determine whether there is a significant difference between the pre and post tests.

Table (2)
Comparison of the pre and post tests of the complete experiment

Test	No of Observations	No. of students	X Mean	S.D	D.F	T Value	
						Calculated Value	**T distribution**
Pre-test	1	20	3.45	273	38	1.34	
Post-test		20	6.6	906	38		
Pre-test	2	20	3.5	278	38	1.70	0.57
Post-test		20	7.1	1032	38		
Pre-test	3	20	3.8	320	38	2.12	
Post-test		20	7.7	1202	38		

Discussion of Results

The statistical analysis of the results indicates that the mean values of the pre tests are (3.45) in the first observation, (3.5) in the second observation, and (3.8) in the third ones while the mean value in post tests are (6.6), (7.1), and (7.7) in the three observations. It is clearly that the mean values of post tests are higher than the pre-tests. This means that the achievement of the students in post tests are shown higher significant differences from the pre tests in all observations. And the calculated value is higher than the t-tabled this indicates that the null hypothesis is rejected. Thus, there are significant statistical differences of students' achievement in speaking skill between the pre and post tests for the post ones. So, teaching English through using jigsaw is more effected in teaching speaking skill for graduated students at College of Physical Education for Women.

4.1 Conclusions

It has concluded that the use of jigsaw technique in teaching improves students' speaking skill as is shown in the results and using jigsaw in teaching English is better than using the traditional methods and techniques specially in teaching speaking skill. The improving of the students' achievement in speaking skill when they are used jigsaw technique should encourage instructors to apply it in their classroom.

4.2 Recommendations

    English instructors are recommended not to use traditional methods in teaching. Instead they are advised to teach speaking skill through different new methods such as jigsaw technique. Instructors are recommended to give their students to express themselves and giving them the opportunities for more anatomy in learning.

4.3 Suggestions for Further Studies

A study is needed to investigate the influences of other techniques and method in teaching English.

A study is needed for other stages of College of Physical Education i.e, (first year stage) undergraduate students.

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Appendix(1)
Rating Sheet for Scoring Each Observation

No .of Students	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Scoring of Observations

No.of students	Pre-tests			Post- tests		
	O1	O2	O3	O1	O2	O3
1	5	5	5	7	8	8
2	1	2	2	5	6	6
3	3	3	3	6	7	8
4	4	4	3	7	8	8
5	2	1	2	4	5	6
6	5	6	6	8	8	9
7	4	3	4	6	6	7
8	2	3	3	7	8	8
9	4	3	4	8	8	8
10	5	5	6	8	8	9
11	1	2	2	4	5	6
12	4	4	4	7	8	8
13	3	2	3	8	8	8
14	3	4	4	7	7	8
15	4	5	4	6	7	8
16	3	3	3		6	7
17	6	5	6	9	9	9
18	4	4	4	7	7	8
19	2	2	3	6	6	7
20	4	4	5	7	7	8
	N=20	N=20	N=20	N=20	N=20	N=20
$\overline{X}$	=3.45	X=3.5	X=3.8	X=6.6	X=7.1	X=7.7
$\sum X$	69	70	76	132	142	154
$x^2\sum$	273	278	320	906	1032	1202

تأثير اسلوب الاحجية في تدريس اللغة الانكليزية لاغراض خاصة للطالبات المتخرجات من كلية التربية الرياضية للبنات

بان جعفر صادق
كلية التربية الرياضية للبنات

الخلاصة

هذا البحث هو محاولة للبحث بطريقة تجريبية اسلوب الاحجية (المتشابك) في تدريس اللغة الانكليزية على تحصيل طالبات المتخرجات (طالبات الماجستير) في كلية التربية الرياضية للبنات. الاسلوب الحالي يوفر للطالبات حرية التعبير واختيار المادة والمناقشة.

افترض البحث عدم وجود فروق ذات دلالة احصائية على تحصيل الطالبات في تدريس مهارة المحادثة بين الاختبار القبلي والبعدي.

ان عينة البحث 20 طالبة لدراسة الماجستير في كلية التربية الرياضية للبنات. استخدم طريقة الملاحظة لقياس الاختبار البعدي وبواقع ثلاثة ملاحظات وكذلك للاختبارالقبلي. وصممت التجربة المتسلسلة بعينة واحدة . ولقياس ثبات الاختبار بطريقة الملاحظة تم اختيار استمارة Baker 1989 و استخدمت استمارة القياس و جهاز تسجيل لتسجيل الاختبارات,

بعد تحليل النتائج وجد ان هناك فروق ذات دلالة احصائية بين نتائج الاختبارات البعدية والقبلية ولصالح البعدية ولذلك رفضت الفرضية الصفرية.

اوصت التوصيات باعتماد هذا الاسلوب في تدريس المحادثة باللغة الانكليزية لطالبات الماجستير في كليات التربية الرياضية.