

An Investigation into the Effect of Discussion Versus Problem solving Activities on Iranian EFL Learners' Speaking Ability

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ABSTRACT

The present study aimed to investigate whether speaking instruction through two different activity types, namely discussion versus problem solving, affect intermediate Iranian EFL learners' speaking ability. In this study, 60 students of intermediate level were selected from a larger population and were divided into two groups based on their performances on an OQPT, EX1 (discussion group) and EX2 (problem solving). The pretests of speaking were administered to both groups. Then, both groups were instructed EFL speaking through a communicative language teaching method; however, their instructional activities were different. After speaking instruction via different instructional activities for both groups was completed, two groups received posttest. The results of the paired-sample t-tests of the groups indicated that participants of both groups significantly outperformed on the post-test measures of speaking. Upon reviewing the results of the independent-samples t-test concerning speaking performance of two groups, it was revealed that the no group significantly outperformed the other after the intervention indicating that both activity types have helped learners improve their speaking ability. This study has some implications for language teachers, curriculum designers, and material developers. Keywords: Discussion activities, Communication, Communicative competence, Problem solving activities, Speaking skill

Introduction

The English language is an international language. It is spoken, learnt and understood even in those countries where it is not a native's language. English is playing a major role in many sectors including medicine, engineering, education, advanced studies, business, technology, banking, computing, tourism etc. All our software development today, the communication facilities available to us through internet, our access to a variety of websites, are all being carried out in English. Most of the research works are conducted and compiled in English. Anything written and recorded in this language is read and listened to, in wider circles. As a result, English is being taught and learned around the world as a second language today. As in other countries where English has the status of a foreign language the demand for learning English has greatly increased. In Iran in recent years, as the importance of English has been acknowledged both at the national as well as the individual level. Speaking is one the four language skills which required to be developed in order for EFL students to communicate effectively in different contexts. Shumin (1977) states that speaking is a demanding as they need to know not only grammar and lexical knowledge but also knowledge appropriate long way.

Iranian students feel the need to be proficient in English to be able to have communication with people outside Iran and to acquire knowledge in sciences, arts, and new inventions, and of transferring knowledge and the sciences to other communities. It is most unfortunate that school instruction in the Iranian educational system has been unsuccessful in providing learners with communication skills they need. A major reason is that locally produced English language textbooks used in Iranian schools cannot meet the expectations of most learners and teachers (Yarmohammadi, 2002; Razmjoo, 2007).

Nowadays, a large number of Iranian learners face difficulties during their learning of English within the classroom environment, speaking in a fluent and accurate way is their main concern. Foreign language teachers must be aware of how to create an interactive classroom atmosphere to enable learners to practice the language. The current study aimed to investigate the effect of discussion activities versus problem solving activities on Iranian EFL learners' speaking ability.

Literature Review

Speaking Skill

One of the most crucial parts in foreign/second language teaching-learning is speaking. It is of great significance and delicate rank in all language teaching history. Teaching speaking has been undervalued over the course of long period in spite of its significance. Just in the last two decades, it wins its right to be an independent branch of teaching, learning and testing (Carter & Nunan, 2001) in the last two decades.

There are different notions have been given concerning the definition of speaking skill and according to the Oxford Dictionary of Current English (2009, p. 414) speaking is "the action of conveying information or expressing ones' thoughts and feelings in spoken languages". However, Bruns and Joyce (1999, p. 1) maintained speaking as "an interactive process of constructing, receiving and processing information," whereas Chaney and Burk (1998, p. 13) stated that speaking is "the process of building and sharing meaning through the use of verbal or non-verbal symbols in a variety of contexts." Speaking is considered as a skill that has to be "practiced" in English language teaching and learning (Finnocchiaro & Brumfit, 1983, p. 1440) and "mastered" (Grognet, 1997, p. 136).

Speaking skill is considered by the learners as the measure of knowing a language and one of the most important skills they can acquire; because "they assess their progress in the terms of their accomplishments in spoken communication" (Burkart, 1998, p. 57). As a matter of fact, Speaking a language is especially difficult for foreign language learners because effective oral communication requires the ability to use the language appropriately in a social and real interactions (Shumin, 2005), as maintained by Mackey (1978, p. 263) "speaking is the most complex of linguistics skill, since it involves thinking of what is to be said while saying what has been thought." However, Finnocchiaro and Brumfit (1983, p. 1440) consider its complexity in "the knowledge of sound, vocabulary and cultural sub-system of English language that it involves." The distinction between knowledge and skill complexity in oral expression lesson is considered as a crucial measurement in the teaching of speaking because studying knowledge of grammar, vocabulary, pronunciation, intonation and such is not sufficient to be a good learner of speaking, but studying the skill to apply this knowledge to communicate successfully is fundamental (Bygate, 2003).

One of the crucial reasons of learning English language is to be able to speak it that is, the world is becoming smaller and smaller nowadays. Today, people are using English language as a common way to communicate with each other, taking benefit the development of the technologies such as internet, computer and so on. So the global economy lead companies and large businesses to employ people who have ability to speak more than their own native language.

It goes without saying, English language is now officially considered as an international language which the primary benefits of learning is the resulting job, advance education and travel opportunities. Baker and Westrup (2003, p. 5) stated that "a student who can speak English well may have greater chance for further education, of finding employment and gaining promotion." However, the main goal of teaching speaking in a language context is to enhance (the improvement of) the learners' communicative skills or competencies efficiency, by helping them to be fluent, accurate and more communicatively competent in order to achieve the four purposes for learning. Bailey (2002, p. 124) stated the speaking goals as follows:

"1. ACCES: To gain access to information and resources" so that they "can orient themselves in the world." "2.VOICE: To express ideas and opinions with the confidence they will be heard and taken into account." "3. ACTION: To solve problems and make decisions without having to

rely on others to mediate the world for them.” “4. BRIDGE TO THE FUTURE: Learning to learn” so that they “can be prepared to keep up with the world as it changes”.

The study aimed to investigate the effectiveness of two different types of speaking activities, discussion vs. problem solving activities, on Iranian EFL learners’ speaking ability. Therefore, in line with the objectives of the research, three general research questions have been set forward to be answered by the current research:

- **RQ1:** What is the impact of discussion activities on Iranian intermediate EFL Learners’ speaking ability?
- **RQ2:** What is the impact of problem solving activities on Iranian intermediate EFL Learners’ speaking ability?
- **RQ3:** Is there any statistically significant difference in learners’ speaking ability of discussion group versus problem solving group of the study?

Methodology

This section briefly explains the method and design of the study from the inception and then provides information about the participants, instruments, procedures, and data analysis methods.

Research Design

This thesis is based on a quantitative method research approach. Dornyei (2007, p. 24) defined Quantitative research as “involving data collection procedures that result primarily in numerical data which is then analyzed by statistical methods”. Quantitative research uses objective measurement to gather numeric data that are used to answer questions or test predetermined hypotheses. It generally requires a well-controlled setting.

For quantitative research, a sample size of 30 participants is considered appropriate (Dornyei, 2007), and this sample should be representative of the larger group. Samples that are chosen at random will often make it possible to generalize the research findings (Johnson and Onwuegbuzie, 2004). In the case of this thesis, one quantitative research method was employed: a speaking test. The purpose of the speaking test was to differentiate between the effectiveness of *discussion activities* versus *problem solving activities* on Iranian intermediate EFL learners’ conversation ability. This data was used to provide a better picture of the efficacy of various types of speaking instruction activities.

The current study was based upon a quantitative and experimental research which adopted a *Pre-test Post-test Equivalent-Groups Design* to complement its objectives. To be more exact, this study used a *true-experimental design* to collect the needed data to answer the research question. In terms of the importance of this design Cresswell (2009) stated this design is the most reliable method of the quantitative approach in which the researcher intends to examine the impact of an intervention on another dependent variable due largely to the fact that it uses random assignment which neutralizes the effect of other extraneous factors which may mix the final results.

Participants

The target population of the study consisted of pre-intermediate EFL institute students who have been studying English at Safir Language Institute [Ramsar County, Mazandaran, Iran] for one year. The original population who had the chance to take part in the study consisted of 100 EFL learners at the intermediate level, 15-22 year-old. This institute was selected through a cluster random sampling procedure from 5 major institutes at Ramsar. To achieve the number of the participants for the current study, the students sat on a language proficiency test called Oxford Quick Placement Test [OQPT], and based on their performances on the test, sixty students were selected to participate in the current study, and they were assigned into two groups, EX1 (DISCUSSION GROUP) and EX2 (PROBLEM SOLVING GROUP). Therefore, both groups were at the intermediate proficiency level each consisted of 30 learners.

Materials

Oxford Placement Test (OPT)

To make sure of the homogeneity in two groups, proficiency test was administrated to establish of participants' homogeneity. Oxford Quick Placement Test (OQPT) was administered to make sure the participants were homogenous in terms of their language proficiency. This enables teachers to have a great understanding of what level their students are at. The test contains 50 multiple choice questions which assess student's knowledge of key grammar, vocabulary, reading, and a writing task for assessing student's ability to produce the language.

Speaking Test

The speaking test was used as a pre-test and post-test to measure students' English speaking performance. The test contains three tasks: talking about picture differences, reading a text aloud, and expressing one's opinion about a particular topic. The scoring rubric of the test provided a measure of quality of performance on the basis of five criteria: pronunciation, grammatical accuracy, vocabulary, fluency and interactive communication on a five-rating scale ranging from 90- 100 meaning "excellent" to 0-49 meaning "fail".

Validity of a test is an important feature for a research instrument (Wiersma, 2000). An instrument is said to have validity if it measures exactly what it is supposed to measure. All the items in the speaking test were reviewed by the researchers as self-validation. Then the items were given to three experts to ensure the content validity of the test. The experts were asked to validate and evaluate the test by completing a checklist for validating the English speaking test. The results of the experts' evaluation of the test and the scoring rubric showed that all of the criteria used to assess the test on the five-scale indicating positive opinions of the experts.

Reliability of speaking test in this study was estimated by inter-rater method. It involved administering the same test twice to a group of students within the span of a few days (10 days) and calculating a correlation coefficient between the two sets of scores. The assumption was that the testees would get the same scores on the first and the second administrations of the same test. This statistical method was adopted in order to obtain the reliability of the speaking test. The estimated reliability of the speaking test in the current study was 0.85 measured through Cronbach's Alpha. Another essential component to test reliability is that of inter-rater reliability. As it relates to the current study, inter-rater reliability is the degree of agreement between two scorers. If the level of reliability between the two scorers reaches the level of significance, this may indicate that the two scorers are fair in their scoring. In the current study, the correlation coefficients obtained for the two scorers are 0.910 and 0.914, respectively, indicating quite high inter-rater reliabilities. Therefore, this test is reliable and valid for experimentation and could be considered as a research tool for measuring the sample's speaking test. A scoring rubric was used along with the scoring sheet for the purpose of grading. The grading of the speaking skills was based upon five criteria: (1) pronunciation (20%), (2) grammatical accuracy (3) vocabulary (20%), (4) fluency (20%), and (5) interactive communication (20%).

Speaking Treatment Materials

Two speaking course books were used for the purpose of speaking instruction. The EX1 was trained speaking via Interchange Book (Richards, 2017) and First Things First (Covey, 2006).

Procedures of Data Collection

Before the beginning of the treatment, both group were pre-tested on the Speaking Test. The EX1 was taught speaking through discussion activities; however, the EX2 was trained via problem solving activities. Both groups were taught speaking by means of a communicative language teaching (CLT) approach to speaking instruction.

CLT regards language as a tool for effective and meaningful communication, so in this approach, for example, comprehensible pronunciation rather than native-like pronunciation was the goal. CLT gave equal importance to the functional as well as the structural nature of language (Littlewood, 1983; Nunan,

1987). In CLT, meaningful and communicative activities are used to provide learners with the ability to use authentic language. “Using language to learn it” rather than “Learning language to use it” became the slogan of CLT (Widdowson, 1978). Fluency and accuracy were both given emphasis as the important language goals employed in meaningful contexts in the approach as well. Simply put, everything was regarded to be the same in these two groups except for teaching materials. Both groups were taught speaking by the same researcher for three months. Two groups were only different in the classroom activities being used to instruct EFL speaking. In other words, while the EX1 was instructed speaking via discussion activities, the EX2 received speaking instruction through problem solving tasks.

Finally, both experimental groups were post-tested on the same measure which was used in the pre-test, namely Speaking Test. To see if any change has occurred for both groups, the data entered the data analysis process.

Data Analysis Procedure

To examine whether significant differences exist between the two groups of participants prior and after the instruction, descriptive statistical procedures, and a series of t-tests including paired and independent samples t-tests were conducted to examine the impact of using various speaking activities on intermediate Iranian EFL learners’ speaking ability.

Results

Descriptive Analysis of the Data

The descriptive analysis of the data for different groups of the study has been summarized below. Table 1 summarizes the descriptive analysis of the data of EX1 of the study.

Table 1. Descriptive statistics for EX1

	Mean	N	Std. Deviation	Std. Error Mean
Pretest	12.2667	30	1.74066	.31780
Posttest	15.4167	30	1.20833	.22061

As table 1 indicates, the mean value of speaking for the experimental group before the instruction is 12.2667 (SD=1.74066), while the mean for the experimental group after speaking instruction is 15.4167 (SD=1.20833). It is obvious that the EX1 performance on speaking improved greatly after the treatment. It can be inferred that the instruction through discussion activities was effective in enhancing learners’ speaking performance on the test. Next table shows the descriptive statistics of the EX2 of the study.

Table 2. Descriptive statistics for EX2

	Mean	N	Std. Deviation	Std. Error Mean
Pretest	12.3067	30	2.02115	.21423
Posttest	15.0167	30	1.93196	.24150

As table 2 indicates, the mean for EX2 before instruction is 12.8667 (SD= 2.02115), while its mean value after the treatment is 15.01167 (SD=1.93196). With regard to its performance on the post-test, EX2, instructed speaking via problem solving activities, also showed improvement in its speaking ability.

The findings of the study show that the mean value of EX1 on the post-test measures of speaking is 15.41 with a standard deviation of 2.02115. Also, the mean value of EX2 of the study in the post-test is 15.01 (SD=1.20833). Thus, it can be stated that although two groups showed improvement in their speaking ability, EX1 had a bit higher mean value on the post-test of speaking. Thus, in order to investigate whether the difference of speaking ability between groups is significant, the results of t-tests should be presented and discussed.

The Inferential Analysis of the Data

The study aimed to investigate the effectiveness of two different types of speaking activities, discussion vs. problem solving activities, on Iranian EFL learners' speaking ability. The inferential analyses of the data for testing the research hypothesis have been summarized in the tables below.

Table 3 summarizes the inferential analysis of the data before and after treatment for the EX1 of the study.

Table 3. Paired-samples test for EX1

Paired Differences						
Paired1 EX1	Mean	Std. Deviation	Std. Error	t	df	Sig. (2-tailed)
Pretest-Posttest	3.15	1.0284	.18777	27.154	29	.000

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores on the speaking measures. There was a statistically significant increase in speaking scores from pre-test to post-test, $t(29) = 27.154$, $p < .0005$ (two-tailed). The mean increase in speaking scores was 3.15 with a 95% confidence interval. To answer to the first research question, it can be stated that speaking instruction through discussion activities significantly improved learners' speaking ability. Table 4 summarizes the inferential analysis of the data before and after speaking instruction for EX2 of the study.

Table 4. Paired-samples test for EX2

Paired Differences						
Paired1 EX2	Mean	Std. Deviation	Std. Error	t	df	Sig. (2-tailed)
Pretest-Posttest	2.71	.970	.17728	25.299	29	.000

A paired-samples t-test was conducted between the pre-test and post-tests of EX2 to investigate whether the speaking instruction through problem solving activities improved students' scores on the speaking measures as well or not. There was also a statistically significant increase in speaking scores from pre-test to post-test, $t(29) = 25.299$, $p < .0005$ (two-tailed). The mean increase in speaking scores was 2.71 with a 95% confidence interval. In conclusion, to answer to the second research question, the instruction significantly increased the students' speaking ability of both groups. Further statistical analysis was done to examine whether significant differences existed between two groups in terms of their speaking ability.

Since two groups of the study were of the same level based on OPT result; intermediate level, there could not exist any noticeable pre-existing differences between two groups on speaking ability. Therefore, an independent-samples t-test was conducted between the post-test speaking scores of the groups to see whether there exist any significant differences between two groups in terms of speaking ability after the instruction. Table 5 summarizes the results of the independent samples t-test of the post-test data of two groups.

Table 5. Independent-samples t-test for the pre-test of both groups

	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	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	15.51	3.27	2.11	58	.124	.30	.767	4.06	2.40
Equal variances not assumed			2.11	48.67	.123	.30	.767	4.06	2.39

An independent-samples t-test was conducted to compare the means of two groups for the learners' speaking. The Sig. value for Levene's test is larger than .05 (3.27), then the first row in the table should be consulted, which refers to Equal variances assumed. There was not any significant difference between the EX1 and EX2 ($t(58) = 2.11, p = .124$, two-tailed).

So, the result of this analysis revealed no statistically significant difference between the two groups on the speaking ability test. All things considered, it can be concluded that the speaking instruction via both speaking activities significantly improved the speaking ability of both EX1 and EX2; however, the results of the independent-samples t-test showed that no group outperformed the other on the speaking ability measures.

This study aimed to investigate the possible effects of speaking instruction through discussion versus problem solving activities on speaking ability of the students. In so doing, the students' pre-test and post-test scores on the speaking measures were analyzed to see if there was a statistically significant difference between the two groups in terms of their speaking ability. The results of the paired-sample t-tests of the groups indicated that participants of both groups significantly outperformed on the post-test measures of speaking. Upon reviewing the results of the independent-samples t-test concerning speaking performance of two groups, it was revealed that the no group significantly outperformed the other after the intervention indicating that both activity types have helped learners improve their speaking ability.

Conclusion and Discussions

The present study aimed to investigate whether speaking instruction through two different activity types, namely discussion versus problem solving, affect intermediate Iranian EFL learners' speaking ability. The results of the paired-sample t-tests of the groups indicated that participants of both groups significantly outperformed on the post-test measures of speaking. Upon reviewing the results of the independent-samples t-test concerning speaking performance of two groups, it was revealed that the no group significantly outperformed the other after the intervention indicating that both activity types have helped learners improve their speaking ability. In other words, both activity types were almost equally effective for improving EFL speaking ability. The results of the current study is in line with the findings of the following research studies (Botti & Myers, 1995; Brindly, 2012; Gottschalk, 1994; Martinez, 1998; Nilson, 2010; Ormond, 2006; Thomas, 2000).

The findings of this study can be beneficial to the Followings: First, it provides English teachers with an effective plan to help their students reach the speaking threshold as soon as possible by recommending them to apply substantially different types of methods, strategies, classroom activities, and classroom materials to enhance learners' speaking. Similarly, the present study has some practical implications for teachers, teacher trainers, material developers, and syllabus designers. EFL teachers can conduct this research in speaking classes and offer the teaching community interesting insights about the right speaking activities that may allow creating more participative and safer environments for English oral practice. Researchers must identify the most suitable activities, instructional materials, and practices for the development of oral skills in the Iranian context.

During the process of completing this study, some limitations made the process of carrying out the study difficult. One of the most important problems was limited number of participants. Sixty two learners were selected as the participants of the current study, however, two participants did not take part fully in the study; therefore, they were regarded as the subject mortality. As a result, the researcher had to continue the research with 30 learners in the each group. In addition, some of the main factors were out of control of the researcher in this study, for example, personality factors such as aptitude, the students' attitude and motivation, their interest and so on which may have great bearings on the results of the study.

The current study was only conducted with a small number of students, so this would be an area to investigate more fully in future research. The overall number of participants was the 60 EFL learners studying English language. More conclusive findings might have been obtained if the study were replicated with a larger sample at the same university and institute or at different universities and institutes in Iran. Replication of the same study with a larger number of participants at different levels of proficiency over a longer period of time, emphasizing qualitative research, and investigating teachers'

interest in communicative approaches could be an interesting area of research. As well, implementing approaches and activities appropriate to student needs and styles and teacher preferences might be a more realistic approach to introducing new pedagogical ideas and would not be so subject to the “all or nothing” perspective typical of trialing new pedagogical enthusiasms.

Further research should be conducted to assess and evaluate the effectiveness of the current widely used instructional approaches to speaking in this EFL context. According to Kumaravadivelu (2003), each learning environment has unique features and therefore teachers should be context-sensitive in their selection of teaching materials and instructional approach. There is no such a thing like ‘one-fits-all’ teaching approach to speaking English, so speaking researchers are required to seek for the best instructional materials and approaches which help learners cope with their problems and meet their needs in language learning.

References

- [1] Baker, J., & Westrup, H. (2003). *Essential Speaking Skills: A Handbook for English Language Teachers*. London: Continuum.
- [2] Burkart, G. S. (1998). *Spoken Language: What is it and How to Teach it*. Modules for the professional preparation of teaching assistants in foreign languages. Washington, DC: Centre for Applied Linguistics.
- [3] Bygate, M. (2003). *Language teaching, a scheme for teaching education: speaking*. UK, Oxford: University Press.
- [4] Carter, R. & Nunan, D. (2001). *The Cambridge Guide to Teaching English to Speakers of Other Languages*. Cambridge University Press.
- [5] Chaney, A. L., & T. L. Burk (1998). *Teaching Oral Communication in Grades K-8*. Boston: Allyn & Bacon.
- [6] Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- [7] Dornyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.
- [8] Finocchiaro, M., & Brumfit, C. (1983). *The functional-notional approach: from theory to practice*. New York: Oxford University Press.
- [9] Grognet, A. G. (1997) *Elderly refugees and language learning*. Washington DC: Center for Applied Linguistics.
- [10] Hedge, T. (2008). *Teaching and learning in the language classroom*. Oxford University Press.
- [11] Nunan, D. (1987). *Communicative Language Teaching: Making it work*. *ELT Journal*, 41, 136-145.
- [12] Razmjoo, S. A. (2007). *High Schools or Private Institutes Textbooks? Which Fulfill Communicative Language Teaching Principles in the Iranian Context?* *Asian EFL Journal*, 9(4), 126-140.
- [13] Widdowson, H. G. (1978). *Teaching Language as Communication*. Oxford: Oxford University Press.
- [14] Yarmohammadi, L. (2002). *The evaluation of pre-university textbooks*. *The Newsletter of the Iranian Academy of Science*, 18, 70-87.