

## THE IMPACT OF NOTE TAKING ON THE IMPROVEMENT OF LISTENING COMPREHENSION OF IRANIAN EFL LEARNERS

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### ABSTRACT

*Note taking is a popular and operative strategy which increases the students' ability to remember, comprehend, and keep the material in mind. Nowadays, it is very common for teachers to use the note taking strategy in EFL listening classes due to the fact that taking notes can help students catch the main points easily and in turn promote their listening comprehension effectively. However, it creates areas of concerns for some researchers about whether taking notes is effective for students to improve their listening comprehension. Thus, it generates great research subjects for scholars to be studied. The present study, which is a quasi-experimental one, aimed at investigating the effect of note taking on listening comprehension of 30 EFL learners in the intermediate level of English language proficiency. The study was conducted through pretest and posttest on two groups. Data collection procedure was completed by the learners' obtained scores in the listening section of PET test. The findings based on the analysis of ANCOVA revealed that note taking during listening is effective on learners' listening comprehension score. This study could be helpful for teachers who face problems in their learners' listening comprehension.*

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**Keywords:** Listening comprehension, Note taking strategy, EFL.

Received: 3 March 2014 / Revised: 10 April 2014 / Accepted: 14 April 2014 / Published: 8 May 2014

### 1. INTRODUCTION

Listening comprehension historically has received only minimal attention in the teaching of English as a second language (ESL), but in fact it is one of the most important skills that a second language learner must master to succeed at university studies. One of the cognitive strategies from which learners benefit while listening specifically in mini lectures is note taking strategy. Carrell *et al.* (2002) state that "Taking lecture notes is accepted as a useful strategy for augmenting student

attention and retention of academic discourse”. Note-taking activity is a useful strategy to facilitate the process of learning and recalling lecture materials. During this process three types of knowledge are activated and these are situational knowledge, linguistic knowledge, and background knowledge (Kilickaya and Cokal-Karadas, 2009).

There are different studies about note taking in different situations with different participants who have reached different results (Carter and Van Matre, 1975; Barnett *et al.*, 1981). Although reasons for the differences in results are not entirely obvious, the general conclusion is that the opportunity to take notes does not necessarily produce beneficial effects. Rather, the effects of being able to take notes may depend heavily on the conditions under which note-taking effects are assessed. The aim of this study was to determine whether note-taking, a cognitive strategy, has any effect on listening comprehension of Iranian EFL students.

## 2. REVIEW OF RELATED LITERATURE

Generally, EFL teachers and scholars agree on the benefits of note taking as a popular and operative strategy to increase students’ ability to remember, comprehend, and keep in mind the material. It is believed that the most outstanding advantage of taking notes for EFL students is the accessibility of catching unfamiliar names, terms, and ideas in text for memorization and later comprehension. Taking note is an important strategy which is used for increasing learners’ attention to the lecture and supporting of its content. By the same token, note-taking can play a crucial role in listening comprehension.

### 2.1. Significance and Benefits of Note Taking

Note taking during listening is a strategy that is usually used by learners in order to intensify their attention to what they hear and recall for later use. As argued by Viani (2011), note taking is still a common activity and important part of high school and university classes even with pedagogical tendencies moving away from teacher-centered instruction. Moreover, several studies have found that note taking has a significant effect on student’s performance. Two trends which have helped note taking remain strong in high school classes are the growing emphasis on standardized tests and the increasing number of students who expect to attend institutions of higher learning. According to Kiewra (1985), note taking is advantageous for at least two reasons. First, note taking helps lecture learning by activating attentional mechanisms and engaging the learner’s cognitive processes of coding, integrating, synthesizing, and transforming aurally received input into a personally meaningful form. Second, note taking is useful because the notes taken serve as an external repository of information that provides later revision and review to reassure remembrance of the information heard.

### 2.2. Definition of Note Taking

According to Dewitt (2007), note taking is defined as “an external memory aid that refers to writing a brief record of information to be remembered”. It was estimated that note taking would allow for two methods of processing information in one memory aid because participants who used

note taking not only wrote words and ideas, they also had to think to be able to produce the words and ideas that they wrote. The combination of thinking and writing was estimated to result in more effective processing of the information which would make retrieval of the information more likely. Nakayama *et al.* (2011) state that “Note taking is a commonly used and time-honored skill, employed in all types of learning situations, even in higher education”.

### 2.3. Effects of Note Taking

Seward (1910) discusses the assumed functions of note taking. He believes that our notes should be useful for the aims of review so far that efficacy is not their primary value. Notes should be complete, however, they must include only what the mind has accepted as important. The practical value of notes that we take can make us aware, in charge, and clearheaded. When we listen to a lecture, it also serves like a ready test of the firmness of our comprehension.

Hartley and Davies (1978) refer to 35 studies conducted on the effects of note-taking: 17 studies found that the note-takers performed better than the non-note-takers, 16 studies found no difference, and two studies found that note-taking interfered with performance. Other studies indicate that note-taking has no effect on achievement. A few researchers have even found that taking notes has an adverse effect on student achievement (Ornstein, 1994).

### 2.4. Note Taking During Listening

There are some studies about lecture comprehension in second language that have explored the specific skills that are necessary in effective comprehension. As it is mentioned in Song (2008), it is debatable what makes the content of academic listening and what levels of performance are required for academic success. The following nine listening skills in second language seem useful in related research studies:

- identifying major themes or ideas,
- identifying relationships among major ideas,
- identifying the topic of the input,
- retaining information through note taking,
- retrieving information from notes,
- inferring relationships between information,
- comprehending key vocabulary,
- following the spoken mode of lecture,
- identifying supporting ideas and examples.

Some studies try to examine the major problems that hinder EFL learners' comprehension during listening. It is demonstrated by some research that great informality of texts can cause non-native speakers problems, like culture shock about the role and status of lecture or distorting the definite structure of the traditional lecture monologue.

## 2.5. The Impact of Note Taking on Keeping and Recalling Information

Kesselman-Turkel and Peterson (1982) believe that students spend a lot of time trying to get facts and concepts into their head, as they considered that all the remembering happens in the brain. Nevertheless, Kesselman-Turkel and Peterson thought that our muscles have better memories than our heads. As a result, they found note taking as a muscle activity which helps us to remember ideas we have written down. This activity is very efficient than just listening or reading, even for most attentive learners. There are some students who are not willing to take note because they cannot concentrate on what they read or listen. This can be due to their inability in taking good notes and lack of enough skills. They regularly attempt to write down every word so that they cannot organize their own notes. Also, there are some learners who say they miss the continuity of what they read or listen while taking notes. However, Kesselman-Turkel and Peterson believe that we miss a lot more if we listen to a lecture or read a long text and then try to recall its main ideas.

## 2.6. Two Hypotheses on Note Taking

Gee (2011) proposed two hypotheses in the act of note taking:

### 1- The Distraction Hypothesis

The distraction hypothesis, corresponding to extraneous load in cognitive load theory, suggests that taking notes reduces a learner's ability to pay attention to the lecture, particularly when the information is presented at a rapid rate.

### 2- The Attention Hypothesis

The attention hypothesis, corresponding somewhat to the idea of relevant load, states that note taking forces the learner to pay more attention to the presented material, and to process it more deeply.

## 2.7. Teaching Note Taking

Despite the fact that techniques for understanding and writing texts are widely taught and practiced throughout a student's school and university years, very few students are taught even basic "note taking" skills. It is noteworthy that students are expected to take extensive notes during lectures, listening and teaching as note taking is considered to be useful for storing learning, and thinking about what is being taught.

Viani (2011) believes that it is common for students to be introduced to note taking at the middle-school level. However, it is not clear whether students worth or recognize the importance of note taking or have even acquired the skills required to enjoy the full benefits of note-taking. The result of research by Van Meter *et al.* (1994) revealed that there is a wide variability on how university students perceive the practice of note taking. However, little is known about the early stages of students' note-taking development. As perceptions of learners often play a central role in behavior and performance, it is important that teachers realize their students' perceptions so they can better deal with individual differences, preferences, and learning styles that relate to the widespread practice of note taking.

### 3. METHODOLOGY

#### 3.1. Design and Procedure

The design of the study is a quasi-experimental one consisting of pre-test and post-test which is similar to the true experiments. Quasi-experiments, however, are different from true experiments in that in such designs “they do not use random assignments to create the comparisons from which treatment-caused change is inferred” (Cook & Campbell, 1979, as cited in Dornyei (2007)). Two classes were selected randomly, one experimental group and one control group. These two selected group members participated in six sessions of the listening task in which the experimental group did take notes and the control group did not take notes.

The *standardized Cambridge PET test* was given both to the experimental and control groups which lasted for 35 minutes. There were 25 written questions in four parts that the participants were supposed to answer them. The participants completed the questions which were devised on the listening for the pretest and posttest. The experimental group differed according to the type of feedback they received, in other words, the experimental group was asked to take notes based on the strategies that the researchers asked them. So, they could take notes during listening. The independent variable of study was “the impact of note taking” which was operationalized as the linguistic feedback to draw learners’ attention to take notes during listening that helped them to recall the information. “Improvement in listening comprehension” was considered as the dependent variable of the study.

#### 3.2. Research Question and Hypotheses

Research Question: Does note-taking have any effect on the learners’ listening comprehension?

Null Hypothesis (H0): Note taking doesn’t have any effect on the learners’ listening comprehension.

Alternative Hypothesis (AH): Note taking have some effect on the learners’ listening comprehension.

#### 3.3. Site of the Study

Tandise Danesh is one of the well-known language institutes in Tabriz, Iran. Teachers are selected to teach by taking test and interview at TOEFL level. After passing this process, teachers are invited to take TTC course. Then, they are recognized as teacher in that institute. Learners are also selected through standardized test and are interviewed for determining their levels, so they are placed based on their proficiency level and age. The institute requires that *Interchange books* to be studied.

#### 3.4. Participants of the Study

Participants for this study consisted of 30 male intermediate level EFL learners ranging in age from 15 to 21, who were selected from the Tandise Danesh Language institute in Tabriz during the spring term of 2013. They were recognized as intermediate based on their scores on the placement

test and on the previous term's achievement test. It is important to say that the students were tested based on *Cambridge PET test*, as a proficiency test. Students taking part in this study were divided into two groups: control and experimental group. Group 1, the experimental group, consisted of 15 participants who had the opportunity to receive strategies of note-taking during listening. Group 2, the control group, consisted of 15 participants who had no opportunity to take notes during listening. The participants of this study received about four hours of English language instruction each week. The research took about three weeks, two sessions for each week.

### 3.5. Research Instruments

In addition to the main books in this institute, i.e. *Interchange* series (Richards, 2005), the researchers used the *Cambridge standardized PET test's (Preliminary English Test)* listening section in order to obtain the learners' listening score for the pre-test and post-test. The *PET listening test* includes four parts: Part one includes seven discreet three-option multiple-choice questions with visuals. Part two also includes six three-option multiple-choice items. Part three includes fill-in-the-gap activities. Finally, part four includes six true/false questions.

### 3.6. Data Collection

In order to conduct the present study, the researchers chose 30 language learners attending the intermediate level proficiency in Tandise Danesh Institute in Tabriz. The learners' proficiency level was determined based on their scores on the placement test. Also, to ensure the homogeneity of participants, an independent T-Test was used according to the participants' final scores of previous term which consisted of 25 questions in four parts. The pass score in this institute is seventy-five.

The learners were supposed to listen to the CD and answer the questions which were written on the paper. The learners in the control group did not receive any treatment after the pre-test. However, the learners in the experimental group were taught the strategies of note-taking to take notes during listening tasks, and their notes were gathered each session. In order to conduct this study, the researchers asked teachers of the learners in the experiment group to teach their students how to take notes during listening tasks. Later, at the beginning of the research, the researchers conducted the *PET test's* listening section and gathered learners' scores as the pre-test. The learners of the experimental group were then taught how to take notes while listening and during the next sessions. Then, after four sessions of note-taking, all the learners in both groups after six sessions were asked to take the *PET listening test* again as the post-test. The researchers gathered learners' scores of the post-test as well. The experimental group differed in terms of the type of feedback (taking note) that they received.

### 3.7. Data Analysis

The data were transcribed and analyzed. In order to examine the normal distribution of variables in this research, Kolmogorov-Smirnov test was used as well. Then, the obtained results from both control and experimental groups were analyzed according to ANCOVA test to adjust

post-test scores for any pretest differences and to know whether there were any significant differences between the control group and experimental group.

In other words, the researchers tried to find out whether note taking had any significant effect on learners' listening comprehension in intermediate level proficiency or not. Below, first the results of Kolmogorov-Smirnov test which was employed for the determination of the normal distribution of the variables along with the relevant tables are provided and then in the Findings section the results of ANCOVA test along with its accompanying tables and figure are displayed discussed.

**3.8. Kolmogorov-Smirnov Test for Normal Distribution of Variables**

In any research before determining the type of test which is needed for hypothesis testing, it is important to ensure the normal distribution of variables. In other words, the variables in a research need to be similar to each other with no major difference. In this study, to examine the normal distribution, Kolmogorov-Smirnov test was used. The variables would be considered as normal if  $p > 0.05$ . Table 1 indicates that the significance of pretest in the experimental group is 0.85 and in the posttest it is 0.71. As these two numbers are more than 0.05, it can be argued that the variables are distributed normally. That is to say, the scores of the participants in this study are close to each other with no skewedness and they are in a similar level of language proficiency.

**Table-1.** Kolmogorov-Smirnov test examining normal distribution of variables in experimental group: One-sample Kolmogorov-Smirnov test

		Pretest	Posttest
	N	15	15
Normal Parameters(a,b)	Mean	14.5333	16.7333
	Std. Deviation	1.68466	2.01660
Most Extreme Differences	Absolute	.158	.181
	Positive	.158	.181
	Negative	-.128	-.147
	Kolmogorov-Smirnov Z	.610	.700
	Asymp. Sig. (2-tailed)	.850	.711

a: Test distribution is Normal

b: Calculated from data.

Table 2 shows that the significance of the pretest in the control group is 0.44 and in the posttest it is 0.98. As these two numbers are more than 0.05, it can be argued that the variables are distributed normally. So, the variables of this study in the control and in the experimental group are distributed normally.

**Table-2.** Kolmogorov-Smirnov test examining normal distribution of variables in control group: One-sample Kolmogorov-Smirnov test

		Pretest	Posttest
	N	15	15
Normal Parameters(a,b)	Mean	14.6000	15.6667
	Std. Deviation	1.91982	2.22539

Most Extreme Differences	Absolute	.223	.116
	Positive	.223	.107
	Negative	-.177	-.116
	Kolmogorov-Smirnov Z	.862	.448
	Asymp. Sig. (2-tailed)	.447	.988

a: Test distribution is Normal

b: Calculated from data.

#### 4. FINDINGS

The present study attempted to investigate the effect of note taking on intermediate Iranian EFL learners' listening comprehension. The results revealed that the variables were distributed normally in this study so the type of parametric test which was needed for this thesis was ANCOVA test. After collecting data through pretest and posttest from participants in the control and experimental groups, the data were analyzed.

In the following table the results obtained from ANCOVA are illustrated. According to these findings, it becomes clear that note taking is effective on listening comprehension of learners in this research. Table 3 indicates that variance is 5.99, Sig 0.02 and Eta Square is 0.18. It is believed that if the significance of a test is less than 0.05, the alternative hypothesis would be accepted. As the significance in this thesis is 0.02 and less than 0.05 ( $P < 0.05$ ), so the alternative hypothesis is accepted. That is to say, note taking is effective on the listening comprehension score of learners who participated in this study. Eta Square which is 0.18 reveals that we can predict the effect of note taking on the development of listening comprehension for 18%.

**Table-3.** Results of ANCOVA test: Tests of between-subjects effects: Dependent variable: post-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	91.660(a)	2	45.830	28.683	.000	.680
Intercept	2.251	1	2.251	1.409	.246	.050
PREMARK	83.126	1	83.126	52.026	.000	.658
GROUP	9.578	1	9.578	5.994	.021	.182
Error	43.140	27	1.598			
Total	8008.000	30				
Corrected Total	134.800	29				

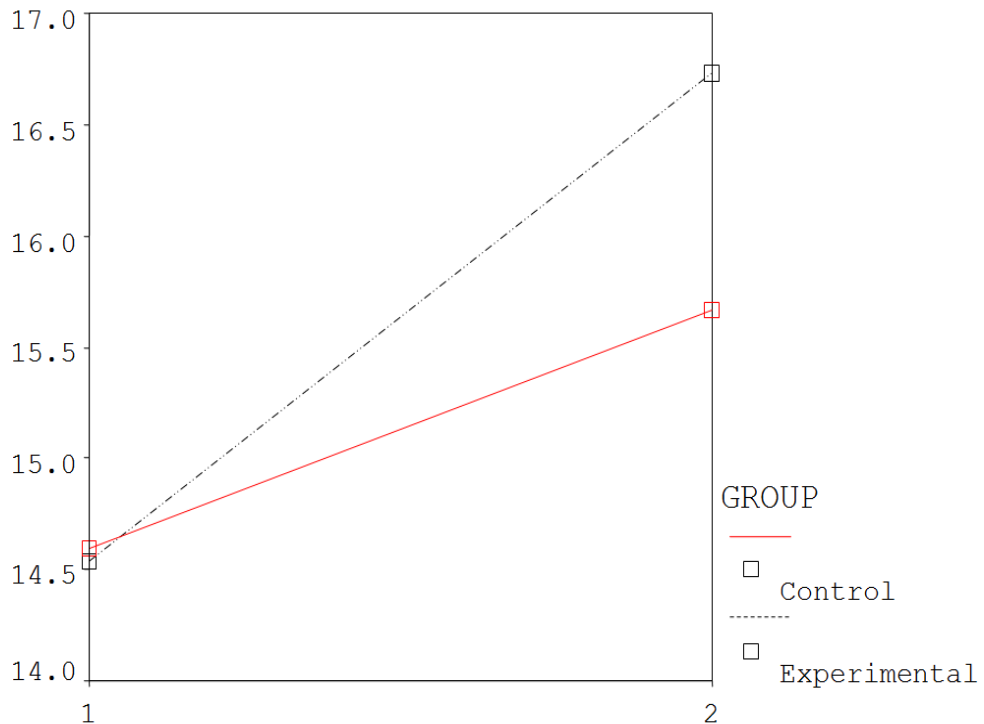
Table 4 shows that the mean and standard deviation of the experimental group are 16.76 and 0.32 respectively and the mean and standard deviation of the control group are 15.63 and 0.32, respectively. According to these findings, as the mean score in the experimental group is 16.76 and this score is more than the mean score in the control group which is 15.63, thus it can be concluded that note taking is effective on the score of listening comprehension of learners. In other words, the scores of participants in the experimental group increased after they were taught and asked to take notes during listening task.



**Table-4.** Mean and standard deviation of experimental and control groups: Dependent variable: post-test

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
control	15.635(a)	.326	14.965	16.305
experimental	16.765(a)	.326	16.095	17.435

The findings mentioned in table 2 are illustrated in figure 1. In this figure the dotted line represents the experimental group and the straight line is for the control group. According to this figure, the mean score of participants in the experimental group in the posttest is higher than the mean score of learners in the control group after being allowed to take notes while listening. That is to say, note taking is effective on the development of listening comprehension and their scores were increased by taking notes during listening test.

**Figure-1.** Listening comprehension scores of both experimental and control groups

## 5. DISCUSSION AND CONCLUSION

There are a number of studies that have investigated the role and effect of note taking on reading and listening comprehension in listening to lectures and taking listening tests. The findings of these studies make scholars and educators admit that note taking is a very beneficial and appropriate strategy to document the heard information and also keep them so that they can be used while reviewing the previously read or heard materials. Huang (2006) conducted a study among 78 Chinese EFL students in an American university. He found that the majority (80.8%) of

participants agreed that the academic skill of note taking in class was beneficial in favor of improving comprehension and gaining information.

Kilickaya and Cokal-Karadas (2009) argue that participants who were allowed to take notes significantly did better than those who were not allowed to take notes when listening to lectures or tapes. Taking notes while listening to a lecture is a common strategy supporting information in academic setting. According to them, note taking facilitates learners' performance without relying heavily on their memories to store all kinds of information heard in the lectures. It is remarkable to express that the listening comprehension tests should allow note taking rather than making students rely on their memories, which to some extent, results in poor performance.

There are some scholars who point out that through the process of note taking, students can improve their listening comprehension from different angles, such as enhancing recall and paying more attention to the listening text. Since the issue of note taking is still controversial, the purpose of this study was to explore the impact of note taking on EFL students' listening comprehension. The independent variable of the present study is note taking and the dependent variable is improvement in listening comprehension. The obtained result indicates that note taking is effective in listening comprehension scores of male EFL learners who participated in this research. The result of ANCOVA test revealed that the effect of note taking on listening comprehension can be predicted for 18%. Based on the results of the present study, some implications can be drawn for both teachers and learners. As the result of this study shows, note taking is effective in listening comprehension; this can lead teachers and educators to concentrate on the usefulness of note taking strategy. By teaching note taking strategy to learners, they can clearly witness the improvement of students in their listening comprehension. Moreover, the result of this research can inform learners about the importance and usefulness of note taking during listening. Therefore, by learning how to take notes and actually taking notes during listening, students can do much better on their academic life. Future research studies can investigate the lack of vocabulary capacity which is believed to be the main barrier for students to take notes effectively. In addition, it may distract students from their listening because of spending too much time in verbatim note taking. So, studying causes and reasons of ineffective notes can be useful for future research studies.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**Contributors/Acknowledgement:** All authors contributed equally to the conception and design of the study.

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