



The Comparative Study of the Effects of Shadowing and Note-taking on EFL Students' Listening Comprehension Improvement

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ABSTRACT

The purpose of this study was to compare the effects of shadowing and note-taking on listening comprehension of EFL learners. To achieve the purpose of the study, 85 female EFL learners at the pre-intermediate level of proficiency with the age range of 18-35 were selected out of the initial 120 participants based on their performance on a piloted PET. During a five-week instruction period (twice a week), both classes practiced listening comprehension for 45 minutes through shadowing and not-taking activity (following Kadota & Tamai's Model, 2004). The results of the independent samples t-test demonstrated that there was no significant difference between listening posttest scores of shadowing and not-taking groups. The study provides implications for both theory and pedagogy.

Keywords: Shadowing; Note-taking; EFL students'; Listening comprehension .

1. Introduction

According to Wooldridge (1995), field-dependent individuals are interpersonally oriented and rely heavily on external stimuli. Therefore, these individuals tend to be open to others' opinions and attitudes. They also have short attention spans and can be easily distracted. He adds to the point by maintaining that field-dependent learners prefer casual instructional situations in which they can reveal their feelings and experiences. In comparison to field-independent learners, they are less achievement-oriented and less competitive.

Conversely, field-independent individuals tend to be more independent and they seem to be more task-oriented during the process of learning. These learners are more focused and disciplined with longer attention span. As Witkin and Goodenough (1981) believe, field-independent individuals depend more on internal cues and prefer more formal settings for learning. Therefore, it can be concluded that they are more competitive and achievement oriented learners. According to Wooldridge and

Haimes-Bartolf, (2006), "the difference between field-dependent and field-independent people is *how* the learning or memory process occurs rather than in how *effective* that process is" (p. 477). The findings of the experiment carried out by Davis and Frank (2005) revealed that field-independent individuals with short-term memory performed more efficiently than field-dependent individuals under conditions of high information load and the case of potential interference.

In addition to listening strategies such as metacognitive strategies, the type of task in which the learners involve can also contribute to the improvement of learners' listening comprehension. For example, shadowing activity is one of the effective techniques to improve listening skills in EFL settings with regard to working memory system (Hamada, 2015). As Hamada (2015) holds, shadowing was originally used as a technique for training novice interpreters, but recently it has been imported as an EFL teaching technique for improving listening in particular.

Furthermore, in recent years, researchers have emphasized on the complicated and cognitively demanding nature of shadowing (Hamada, 2015). In contrast to repeating an off-line task that provides learners with silent pauses in which they can reproduce the sounds they have heard, shadowing is considered an online task that requires learners to vocalize the speech they hear while they are still listening (Shiki, Mori, Kadota, & Yoshida, 2010). In fact, shadowing is not a simple passive activity, but actually involves a complex active process in which students are actively engaged, and which enhances the function of the phonological loop in working memory (Kadota, 2007). To him, via the process of making efforts to reproduce the perceived spoken output simultaneously and flawlessly in a tangible way, phoneme perception enhances and consequently the amount of information absorbed goes up.

Therefore, "more information is stored in the phonological store and retained in the sub-vocal rehearsal. This helps the phonological loop process more information effectively, thus contributing to better listening performances" (Hamada, 2015, p. 3). Hamada further asserts that through shadowing, learners can improve their listening process from the bottom up, and increase their perception of speech phonemes while the capacity of their short-term memory is boosted.

1.1.Statement of the problem

A lot of studies have been done regarding the effectiveness of metacognitive listening strategy training on Iranian EFL learners' listening performance (Rasouli, Mollakhan, & Karbalaei, 2013), but no research has been conducted in which metacognitive strategies are embedded into shadowing activity to make it cognitively less demanding and more fruitful for EFL learners' listening comprehension. In addition, individual differences among students, or their learning styles, also impact their language learning. Oxford (2001) states, "Styles and strategies are the main factors that help students to determine how and how well they have learned a second language or a foreign language" (p. 359). There are empirical studies comparing different perceptual tendencies in terms of using metacognitive strategies while reading and writing in the Iranian context (Rasouli, et al., 2013). However, no study has focused on listening skill in this regard.

Therefore, the present study was an attempt to study whether there was a significant difference between the effect of Shadowing and Note-taking on Iranian EFL students' listening comprehension improvement. Considering the purpose of this study, the following research question was formulated:

Question: Is there any significant difference between the effects of shadowing and note-taking on EFL students' listening comprehension?

In the present study, shadowing activity refers to "an active and highly cognitive activity in which learners track the speech that they hear and vocalize it as clearly as possible while simultaneously listening" (Tamai, 1997, p. 105). Note-taking strategy, according to Diaz (2014), is defined as "an external memory aid that refers to writing a brief record of information to be remembered". It was assumed 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 found to result in more effective processing of the information which would

make retrieval of the information more likely. Nekoueizadeh (2013) states that “Note taking is a commonly used and time-honored skill, employed in all types of learning situations, even in higher education”.

In addition, listening comprehension refers to “a complex process in which listeners play an active role in discriminating between sounds, understanding vocabulary and grammatical structures, interpreting intonation and stress, and finally, making use of all the skills mentioned above, interpreting the utterance within the socio-cultural context” (Vandergrift, 1999, p. 388).

1.2. Significance of the study

Recent findings have, nevertheless, proposed that teaching listening could be problematic during shadowing. In fact, “due to the online nature of shadowing, learners concentrate on immediately speaking the heard words, so they will lack time and cognitive capacity to simultaneously monitor their performance” (Hamada, 2015, p. 7). In this regard, the current study can contribute to our knowledge by adding one or some alternative steps to the shadowing procedure, which is totally in line with other findings such as Hamada’s (2015) studies.

Therefore, if it reveals that embedding note-taking strategies into stages of shadowing has a significantly different effect on learners’ listening, then teachers, syllabus designers and curriculum developers may consolidate their teaching materials with these strategies differentially. To accomplish this aim and to respond to a recent call for further research in the area of learners’ stylistic preferences, we tried to conduct the current study hoping to examine whether using note-taking strategies and shadowing activity had a significantly different effect on the process of listening comprehension of learners.

3. Method

3.1. Participants

To achieve the purpose of the study, 85 female EFL learners in three language schools in Andimeshk, Iran, at the pre-intermediate level of proficiency with the age range of 18-35 were selected out of the initial 120 participants based on their performance on a piloted PET. The participants were selected non-randomly based on convenience non-random sampling. First, a PET was piloted on 30 students with almost similar characteristics to the target sample and it was then administered to 120 students in order to select a homogenized sample in terms of overall language proficiency. To do so, only those participants whose scores fell within the range of one standard deviation above and below the mean were selected as the target sample of the study.

3.2. Instrumentation and materials

3.2.1. Preliminary English Test (PET)

Preliminary English Test (PET) is an English language proficiency test which is considered as one of the standardized tests from the series of Cambridge ESOL. In this study, a sample of PET was administered to participants in order to homogenize them in terms of language proficiency. This test was adopted from the book entitled Past Examination Papers published in 2008 by the University of Cambridge ESOL Examinations and it was considered as the pre-test in this study. PET tests four language skills: Reading, Writing, Listening and Speaking, but we utilized the reading and listening sections of a PET test as the pre-test. The Cronbach’s Alpha was employed for this purpose and an acceptable reliability of .93 was obtained.

3.2.2. Story book for shadowing and note taking activities

This short story was selected from Penguin Active Reading Collection which provides reading and language learning at five levels through full-color and illustrated Readers. As well as enjoyable stories and texts, each book provides a range of integrated activities designed to develop reading and listening skills and consolidate vocabulary. It also offers personalized project work for students.

Each book is supported by an interactive CD-ROM, which contains additional activities and the complete audio recording. At each level, learners should know a certain number of headwords or key vocabulary items. *Anne of Green Gables* is from the second stage with 600 headwords which is appropriate for the participants' level of proficiency. The first two chapters of the book were taught during the instruction.

3.3. Procedure

3.3.1. Pre-Treatment Stage

First of all, a PET was administered to a group of 30 female students with characteristics almost similar to the target sample in order to carry out item analysis and examine the reliability of the test. The results of item analysis indicated that three items in the test were malfunctioning which were removed from the test to add to its reliability. Then, the researchers administered the piloted PET to 120 pre-intermediate female students in order to select a homogenized sample of participants in terms of their language proficiency. Based on the results of the test, 85 students whose scores fell one standard deviation above and below the sample mean were selected as the participants of the study.

3.3.2. Note-taking strategy training and shadowing activity (treatment)

The participants in the two experimental groups practiced listening comprehension through shadowing or taking notes of the speech they heard. This process was followed for five weeks (twice a week for 10 sessions) during which the participants practiced the revised version of the shadowing and note-taking procedures provided by Kadota and Tamai (2004). The researchers used this model since it has shown to result in significant improvement in listening comprehension skills (Hamada, 2015). The empirical studies conducted by Shiki, et al. (2010) and Hamada (2012) have proposed five or six repetitions of shadowing and note-taking for listening improvement, so the researcher did the same in this study to verify the possible effects.

During the five weeks of shadowing and note-taking practice, which lasted for 10 sessions, both the experimental groups (in two classes) also received note-taking and shadowing strategy training for listening comprehension.

At the very first session of the training, the researchers explained how to use shadowing and note-taking strategies while they were involved in listening comprehension activities. At every stage, the students were asked to work on shadowing and note-taking. The researchers as the instructors played the audio (CD) and all participants continuously shadow, with no pair working involved during the process of shadowing.

4. Results of PET Main Administration

Initially 120 language learners were selected based on their availability. The selected learners took the PET so that their PET scores could be used as a criterion to single out those participants who had the closest scores to the mean score. In other words, the attempt aimed at selecting only participants with homogenized English language proficiency. Moreover, since inter-rater reliability was established during the pilot phase, one of the scorers scored the reading and listening sections of PET. Table 1 shows the descriptive statistics of the 120 pre-intermediate language learners.

Table 1. Descriptive Statistics of the PET Main Administration

	N	Minimum	Maximum	M	SD
PET	120	51.00	86.00	67.91	7.478
Valid N (leastwise)	120				

Table 1 shows that students had a mean score of 67.92 (SD=7.48) on PET. Figure 1 illustrates the distribution of PET scores of the sample of 120 students.

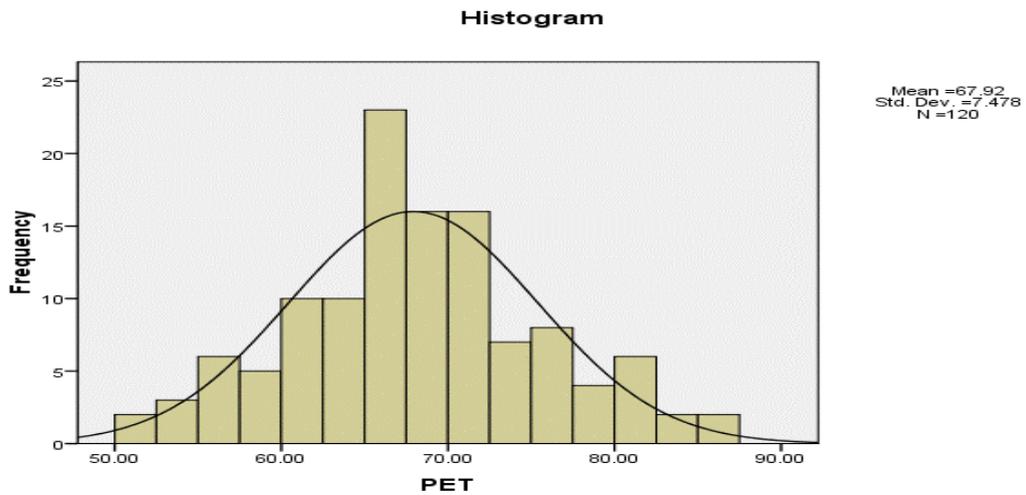


Figure 1. Distribution of PET Main Administration

As seen in Figure 1, the distribution of PET scores is close to normal distribution, which means that the mean score can be a good indicator of central points of distributions. To choose those students with homogenized language proficiency, students whose PET scores fell within the range of mean score ± 1 SD were extracted from the pool of 120 language learners which resulted in a sample of 85 students. Table 2 shows the descriptive statistics of the selected participants.

Table 2. Descriptive Statistics of the Selected Sample

	N	Minimum	Maximum	M	SD
PET Homogenized	85	60.00	75.00	67.49	3.86
Valid N (leastwise)	85				

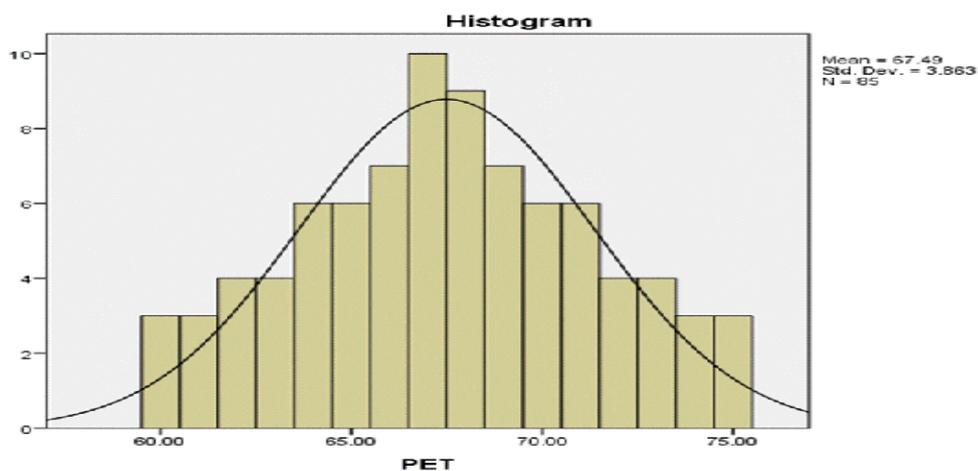


Figure 2. Distribution of the Selected Samples' PET scores

According to Table 2, the mean score of the selected students turned out to be 67.49 (SD=3.86).

The mean score of the selected students did not change a lot from that of the initial pool of students, but their SD had almost half reduced, which is an indication of a more homogenized sample of participants. Figure 2 shows the distribution of the scores of the selected participants.

After establishing the homogeneity of students they were further divided into two groups of shadowing (SH) and note-taking (NT) based on their performance on GEFT. Table 3 shows the descriptive statistics of the two groups on PET.

Table 3 Descriptive Statistics of the PET after Group Assignment

	SH	N	M	SD	SEM	Kolmogorov-Smirnov		
						Statistic	df	Sig.
Listening	NT	36	69.88	2.40	.35	.09	36	.19
	SH	49	70.142	2.04	.34	.091	49	.19

As demonstrated in Table 3, a subtle difference is observed in the PET mean score of the two groups. In order to see whether this difference was significant prior to the treatment, and independent samples *t*-test, which was legitimate due to the normality of the distribution of scores (Kolmogorov-Smirnov results in Table 3) was run. Table 4 shows the results.

Table 4. Results of Independent Samples *t*-Test on Shadowing and Note-taking Groups' PET (Pre-Treatment Stage)

		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
Listening	Equal variances assumed	1.224	.272	.824	83	.23	-.25397	.50631	-.68389	1.32456
	Equal variances not assumed			.824	82.012	.2356	-.25397	.49531	-.68389	1.32456

Based on the results of Table 4, no significant difference was observed in the mean score of the participants of the SH and NT groups and homogeneity was established prior to the treatment.

4.1. Testing the hypothesis

In order to test the research hypothesis, listening posttest scores of NT and SH participants were compared. The descriptive statistics of the posttest (Table 4) demonstrated that NT and SH participants obtained almost similar mean scores on the posttest (17.72 and 17.18, respectively). In order to examine whether this mean difference was significant or not, an independent samples *t*-test was run. Since the distribution of scores enjoyed the normality, running the independent samples *t*-test was legitimate. Table 5 demonstrates the results of the independent samples *t*-test on the posttest results of NT and SH participants.

Table 5. Results of Independent Samples t-Test on SH and NT Groups' Listening Posttest

		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
Listening	Equal variances assumed	1.370	.245	.782	83	.436	.53	.68	-.83	1.90
	Equal variances not assumed			.807	82.01	.422	.53	.66	-.789	1.86

According to Table 5, the Levene's test of equality of variances indicated that the two sets of scores had equal variances ($F=1.37$, $p=.24 > 0.05$). Therefore, the results of the t -test with equal variances assumed are reported here. According to the results ($t=0.78$, $df=83$, $p=.44 > 0.05$, two-tailed), the alternative hypothesis wasn't maintained and it was rejected. These results showed that there was no significant difference between listening posttest scores of NT and SH groups. Therefore, it can be suggested that NT and SH had similar effects on the listening comprehension of the students.

5. Discussion and Conclusion

The present study attempted to examine how SH and NT might impact the students' listening comprehension. Through the screening conducted by PET scores, 85 students with similar language proficiency underwent experimentation. Out of the 85 students, 36 students were assigned to SH treatment condition and 49 students to NT treatment. According to the results, the researcher failed to maintain the alternative hypothesis and no differential effect was found for NT and SH groups.

The fact that NT and SH had rather similar effects on the listening comprehension of the learners could be associated with the potentials effect of the two treatments to equally benefit all students regardless of their cognitive styles. Generally, literature is in favor of strategy use and students' achievement in language learning (Yang, 2009). It has also been claimed that metacognitive strategies including SH and NT are among the most significant strategies used by learners when they deal with listening comprehension activities (Coşkun, 2010) which might be another explanation for the fact that both NT and SH groups similarly benefited from these strategies. Goh (2002) asserts that language learning strategies are very essential because learners' awareness of these strategies is connected with effective learning in all learning contexts. The contribution of learning strategies to better listening performance has also been documented in literature (Vandergrift, 2003).

In addition, it can be argued that application of learning strategy training is beneficial to all students with different learning styles on the ground that no matter how cognitively a person is oriented, that person needs to do some planning and goal setting to try to achieve them. Rahimirad and Zaree (2015) commented that metacognition deals with higher order thinking in which one can control and monitor his own action. This element of planning and self-control is evident in the conceptualization of metacognition, which is in line with previous studies regarding metacognition and language achievement. According to Oxford (1990), through using metacognitive strategies, students are allowed to assess their own learning pattern and progress. Therefore, it is justifiable to expect no significant difference between the effect of metacognitive strategies on listening comprehension of NT and SH students.

Apart from what was discussed above and in order to explain the equal effect of the two tested learning strategies of SH and NT on the listening comprehension of EFL learners, another issues including learner training and making them aware of these strategies might be positively effective in their better performance in EFL classes. The current study compared two learning strategies of SH and NT in that the results indicated that these two strategies had equal performance after the treatment period. The point is that strategy training coupled with SH and NT that boosted the effect of strategy training through causing memory boost and remembrance (Kadota, 2007).

Although cognitive style has been referred to as a stable trait (Richardson, 2011), some believe it is something flexible and adaptable (Little & Singleton, 1990). Dörnyei (2005) has also pointed to style stretching as a result of training, which might explain the findings of the current study. In other words, it can be argued that metacognitive strategy training coupled with shadowing could impel the learners with different learning styles to take a convergent approach in dealing with the learning tasks.

Finally, a note of caution seems necessary with regard to the findings of the study. The fact that SH and NT students had similar performance on the listening posttest after strategy training during shadowing and note-taking could also be attributed to the process of categorizing learners to different learning strategy groups.

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