

Investigating the Effect of Schema-building Activities on Iranian Intermediate EFL Learners' Listening Comprehension

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ABSTRACT: Listening comprehension is believed to play a vital role in the second language acquisition process. In the past, traditional listening classes in classrooms were notoriously ineffective at improving listening in real-world situations. Today, teachers take it for granted that employing listening-related strategies and exercises can bring the language learners into real-world situations, enabling the learners to communicate based on what they have experienced. Thus, the aim of the present study is to determine whether activating schema through applying two strategies (predicting and inference) has any effect on listening comprehension of EFL learners. In so doing, 81 female students were randomly chosen as the sample size. To address the purpose, the participants were assigned to three groups (two experimental groups and one control group). The results of paired t-test and ANOVA test indicated that predicting and inference techniques had a significant effect on EFL learners' listening comprehension individually. In addition, it was found that the two techniques had a significant effect on EFL learners' listening comprehension when employed simultaneously. Ultimately, it was concluded in the present study that inference technique was more effective when compared to predicting technique.

Keywords: EFL Learners, Listening comprehension, Schema, Schema-building Activities

INTRODUCTION

Listening comprehension is an important skill in the daily verbal communication. In addition, listening comprehension has become a focus of some researchers from various perspectives. According to the cognitive psychology, listening comprehension is not merely data processing, but an interactive-compensatory cognitive process, in which the bottom-up and top-down comprehension mechanisms work together for the listeners to work out the meaning of the materials. A significant amount of research suggests that it is the top-down information processing ability that distinguishes good listeners and poor listeners (Taylor, 1981), and schema is one of the major factors that affect people's listening comprehension (Khatibi, 2006).

Many researchers emphasize the activation of relevant schemata before listening (Long, 1989). There are studies which deal with the application of schema theory into English listening teaching (Wang, 2004; Chen, 2007). Since EFL students are confronted with so many different types of listening texts, such as fables, simple stories, scientific texts, newspaper articles, poetry, and so forth, it is highly necessary to experimentally explore the effect of schema on listening comprehension.

Despite the fact that listening is the most frequently used language skill in daily lives, in general, listening courses are not considered as important as the other skills. The role the background knowledge plays in comprehension has been formalized as schema theory (Rumelhart, 1980). In the light of the notion of schema theory, it becomes essential to trigger the learners' background knowledge and utilize this knowledge to fully comprehend the listening text. Hence, the ultimate goal of the present examination is to address the effect of schema-based activities on Iranian EFL learners' listening comprehension to develop an idea of how these activities might enlighten their effectiveness through establishing a connection between learners' overall background knowledge and practices pertinent to the listening comprehension.

Review of Literature

Listening is regarded as an active and complicated language learning dimension. It is highly recommended that attention is drawn toward the listening as it is essential for language development. To define listening, Chastain (1988, p. 190) states that listening is “an ability to comprehend the speaking”. It is not surprising that listening and hearing terms are misunderstood or are taken into account as sharing the same meaning. Lawal (1992) distinguishes between the two terms saying that listening and hearing are regarded as active and passive processes, respectively. Lawal (1992, p. 3) believes that “hearing is only basic to listening; it does not constitute the whole of it”.

The importance of listening comprehension has been widely highlighted by researchers. It is essential for giving rise to the gained knowledge and to improve foreign language competence (Hayati, 2009). In addition, Kaplan (2002, p. 42) states that “the components of listening ability can be arranged hierarchically from lower order (for example, decoding, and literal recognition of an utterance), through to higher order sub-skills, such as inferencing, interpretation, and critical evaluation.” What is involved in background knowledge is said to be the discourse and content that people refer to when thinking. “Previous information can be the information extracted from a text as well as the reader’s background knowledge on the topic of a text” (Johnson, 1982, p. 503).

The use of background knowledge is beneficial for learners to bridge the gap between what they already know and what is going to be learnt. Thus, as is believed by Norton and Redmond (2006), activating background knowledge enhances the learners’ power to make inferences about the listening activities context. Background knowledge itself falls into two branches, namely, world knowledge and linguistic knowledge as stated by Sui and Wang (2005). Regarding the utilization of background knowledge within the language development process, Jr (2003) demonstrates that “reading and listening require the reader to make inferences that depend on prior knowledge, not on “decontextualized inferencing skills” (p. 17).

Schema theory, as stressed by Wu-ping (2006) “provides strong evidence for the effectiveness of pre-listening activities which include the outline for listening to the text and teaching cultural key concepts” (p. 26). Pre-listening activities follow specific goals which can be categorized as activating learners’ prior knowledge and providing appropriate context for specific listening tasks. Offering pre-listening activities prepares the learner for overcoming the possible problems happen while listening for comprehension.

Zohrabi and Sabouri (2015) examined the impact of pre-listening activities on Iranian EFL learners’ listening comprehension of authentic English movies. The analysis of the quantitative data and comparison of the mean scores of the two groups via posttest showed that the learners who were exposed to pre-listening activities performed better in the posttest. Moreover, the analysis of feedback indicated the positive effect of pre-listening activities on the EFL learners’ listening comprehension of authentic English movies. In another study, the effect of metacognitive listening strategy training on listening comprehension in Iranian EFL context was explored by Rasouli, Mollakhan, & Karbalaei (2013). The participants in the study were selected from six intact classes consisting of 120 intermediate students studying English in Zabansara English Institute in Gorgan, Iran. The results of this study showed that metacognitive strategy training can advance Iranian EFL learners from the beginning level to a higher level of listening comprehension. Schmidt-Rinehart (1994) implemented an empirical study to examine if an interaction occurred between topical knowledge and L2 listening comprehension. The results garnered from ninety university students of Spanish classes of different levels of proficiency, taking immediate recall-protocols, exhibited that topic familiarity had effects on the scores of the recall measures and that there was a consistent increase in comprehension scores across the different levels.

A review of the literature proves the assumption that incorporating new techniques into the field of foreign language teaching is one way to facilitate the learning situation when it comes to experiencing new items learning. The consensus of above-mentioned studies is to demonstrate the fact that activating learners’ background knowledge and associating the knowledge to new contexts would be beneficial in that students are capable of bridging the gap between what they already know and what they are going to be acquainted with. As a result, students feel assisted when instructed through employing the techniques which arise their consciousness. The afore-mentioned studies have mainly focused on the influence of schema theories and applications on reading and listening skills to present the idea of how making use of schema can build up learning across foreign language learners; however, the present study is after finding the potential effect of schema-building strategies, namely, predict and inference, on listening comprehension of EFL learners.

METHOD

Participants

Participants of this study were 81 intermediate female learners (of Avatalk English Institute who were assigned to three classes, two experimental groups and one control group) after being homogenized. It is worth

noting that the afore-mentioned institute homogenizes the classes through administering placement and standard tests. Therefore, the researcher relied on the homogenizing process done by the institute itself. As the study was carried out in three separate comparison groups, the participants were randomly assigned to one of the three groups. Subjects of the present study were female students ranged between 14 to 16 years of age and their mother tongue was mainly Turkish.

Instruments

The main course book determined was Family and Friends series which was taught by the teachers according to students' level of proficiency. These books contain teacher's resource pack, alphabet books, digital source disc, poster, flashcard, and primary skills development. The researcher who was among the teachers staff employed the afore-mentioned course book as the conventional teaching resources in classes. Also, Placement and Evaluation package interchange written by Tay Lesley and Christa Hansen (2008) was used as the main source to initiate the treatment sessions for the experimental groups.

Research Questions

To examine the effect of schema-building activities on Iranian intermediate EFL learners' listening comprehension, following research questions were formulated.

- RQ₁: Does predicting strategy have any effect on Iranian intermediate EFL learners' listening comprehension?
- RQ₂: Does inference strategy have any effect on Iranian intermediate EFL learners' listening comprehension?
- RQ₃: Do predicting and inference techniques differently affect Iranian intermediate EFL learners' listening comprehension?

RESULTS

To address the above-mentioned questions pertinent hypotheses were developed and followings are the demonstration of statistical analysis on research hypotheses.

H0₁: Predicting strategy does not have any effect on Iranian intermediate EFL learners' listening comprehension.

Table 1. Paired- Samples T-Test Regarding the Effect of Predicting Technique

	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	Mean			
				95% Confidence Interval of the Difference			
				Lower	Upper		
Posttest	-3.66667	1.68705	.32467	2.99929	4.33404	11.29326	.000
Pretest							

Since significance level (p value) is less than 0.05 (0.000), null hypothesis is rejected and alternative hypothesis is accepted i.e. predicting technique has a significant effect on Iranian intermediate EFL learners' listening comprehension. In addition, 95% confidence interval (2.99929, 4.33404) is a positive value and this indicates that Predicting technique has a positive effect on listening comprehension.

H0₂: Inference strategy does not have any effect on Iranian intermediate EFL learners' listening comprehension.

Table 2. Paired- Samples T-Test Regarding the Effect of Inference Technique

	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	Mean			
				95% Confidence Interval of the Difference			
				Lower	Upper		
posttest1	-4.77778	1.88788	.36332	4.03096	5.52460	13.150	.000
pretest1							

Since significance level (p value) is less than 0.05 (0.000), null hypothesis is rejected and alternative hypothesis is accepted i.e. inference technique has a significant effect on Iranian intermediate EFL learners' listening comprehension. In addition, 95% confidence interval (4.03096, 5.52460) is a positive value and this indicates that Inference technique has a positive effect on listening comprehension.

H0₃: Predicting and inference techniques do not differently affect Iranian intermediate EFL learners' listening comprehension.

Table 3. Levene test to examine the homogeneity of variance

Levene Statistic	df1	df2	Sig.
.955	2	78	.389

The results of Levene test are employed to study the assumed homogeneity of dependent variable variance among the groups. Since the test level of significance is greater than 0.05, one can state that the homogeneity of variances has been met.

Table 4. ANOVA Test to examine the effect of predicting and inference techniques

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	220.173	2	110.086	94.398	.000
Within Groups	90.963	78	1.166		
Total	311.136	80			

The level of significance in the ANOVA test is less than 0.05, so null hypothesis is rejected and alternative hypothesis is accepted i.e. predicting and inference techniques differently affect intermediate EFL learners' listening comprehension. However, it is not clear what groups show the difference. Since the group size is equal and variance equity has been met, Tukey test is employed.

Table 5. Tukey test

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig. 95% Confidence Interval	
				Lower Bound	Upper Bound
1.00	2.00	-1.51852*	.29391	.000	-2.2208 - .8163
	3.00	2.48148*	.29391	.000	1.7792 3.1837
2.00	1.00	1.51852*	.29391	.000	.8163 2.2208
	3.00	4.00000*	.29391	.000	3.2978 4.7022
3.00	1.00	-2.48148*	.29391	.000	-3.1837 -1.7792
	2.00	-4.00000*	.29391	.000	-4.7022 -3.2978

The mean difference is significant at the 0.05 level.

As the table above presents, the level of significance pertinent to variables are less than 0.05 in Tukey test and this indicates that all variables of the Tukey test have two by two effect. Also, there is significant difference among the groups. It can be concluded from the mean differences that Inference technique mean is significantly greater than that of Predicting technique and control group. In addition, Predicting technique variable mean is significantly greater than that of control group. This implies that Inference technique is more effective when compared to Predicting technique.

DISCUSSION

As the review of literature previously indicated, foreign language learners experience a number of learning situations in which there are no clear understanding of how the input should be perceived. This results in poor function on the part of the learners and it occurs when students find it difficult to adapt themselves with new inputs they are about to receive. Such a poor performance does not allow the students to maximize their learning potentials and impedes the students from achieving higher levels of proficiency.

The first research question sought to investigate the effect of predicting schema- building activity type on EFL learners' listening comprehension. It was found through running paired t-test that this type of strategy has an effect on intermediate learners' listening comprehension. The above result supports Safamanzar's (1994) contention that activating schemata has a facilitating effect on learners' listening comprehension. He investigated the role of schema on participants' listening comprehension and recall. He also used just male participants who were Air University students. In contrast to Safamanzar's study, the present study did not consider participants' recall as a variable. It also used the effects of different types of schema (content, formal, and linguistic) on participants' listening comprehension.

Prior knowledge has been found to play a key role in the students' comprehension processes and strategy use (Goh, 1998). Goh also claimed that the students are aware of the crucial role of prior knowledge in assisting their listening. Therefore, it is implicated that the teachers are supposed to be trained to supply learners with the appropriate field knowledge as a pre-listening activity in EFL classroom. The background knowledge that students bring with them helps them to perform the listening task more successfully. This knowledge helps the learners to

match new information with what they already know about the topic. Teachers should prepare learners for the listening stage. The results of the current examination affirms the findings of second research question.

This study also supports Shemshadi's (1995) claim that providing appropriate background knowledge prior to the listening task develops learners' schemata. In general, the result of Shemshadi's study and the present study support schema-building activities as a vehicle to improve learners' listening comprehension. The findings of the present study are in line with a number of other studies (Bell, 2003; Chen, 2005; Ge, 2009; Lingzhu, 2003; Norton & Redmond, 2006; Palmer, 2007; Ruhe, 1990; Sadighi & Zare, 2006) suggesting that activating learners' background knowledge facilitates their listening comprehension.

CONCLUSION

The purpose of the present study was to investigate the effect of schema-building activities on Iranian intermediate EFL learners' listening comprehension. To address the research questions, pertinent hypotheses were developed. To make statistical analysis, paired sample t-test and ANOVA test were used to study the possible effect of predicting and inference strategies on listening comprehension of EFL learners. The results of inferential statistics showed that the predicting technique and inference technique had a significant effect on Iranian intermediate EFL learners' listening comprehension individually. Also, the results obtained from the analysis indicated that the two strategies had significant effect on Iranian intermediate EFL learners' listening comprehension when employed in an integrated fashion. This carries the meaning that the two techniques contribute to the listening comprehension of intermediate EFL learners. In addition, it was concluded that when the two strategies i.e. predicting and inference are considered in relation to one another, the former receives priority in terms of the contribution.

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