The Impact of Strategy Instruction on Iraqi EFL Learners' Listening Comprehension and Metacognitive Strategy Use[1]

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Abstract

This study examined the impact of process-based listening strategy instruction on Iraqi EFL learners' listening comprehension and their metacognitive awareness of listening strategies. The study also investigated the differences in all of the five factors of the *Metacognitive Awareness of Listening Questionnaire* (MALQ) offered by Vandergrift et al. (2006). The study was a quasi-experimental with a pretest-posttest design using intact classes. The participants were 60 sophomore EFL learners in Iraq came from two intact classes. One intact class was assigned as the intervention (n=30) and the other as the control group (n=30). The intervention group received a process-based listening strategy instruction based on Siegel's (2015) model. The control group received the conventional teaching of listening without any strategy training. Both groups completed the listening section of the Preliminary English Test (PET) and the (MALQ) at the beginning and the end of the study. Results indicated that listening strategy instruction had generally a positive impact on learners' listening comprehension and metacognitive awareness of strategy use. More specifically, the intervention group outperformed the control group on the listening proficiency post-test and the MALQ. The examination of the MALQ factors showed significant increases in problem-solving, mental translation, and planning-evaluation strategies but decreases in directed attention and person knowledge for the intervention group. The findings suggest a positive effect of explicit instruction of listening strategies on listening comprehension.

Resumen

Este estudio examinó el impacto de la instrucción basada en estrategias para la comprensión auditiva en estudiantes iraquíes de inglés como lengua extranjera y su conciencia metacognitiva de las estrategias de escucha. El estudio también investigó las diferencias en los cinco factores del *Cuestionario de Conciencia Metacognitiva de Escuchar* (MALQ) ofrecido por Vandergrift et al. (2006). El estudio fue cuasi-experimental con un diseño de prueba previa y posterior utilizando clases intactas. Los participantes fueron 60 estudiantes de segundo año de inglés como lengua extranjera en Irak en dos grupos intactos. Un grupo intacto se asignó como intervención (n = 30) y el otro como grupo de control (n = 30). El grupo de intervención recibió una instrucción basada en procesos en estrategias de comprensión auditiva basada en el modelo de Siegel (2015). El grupo de control recibió la enseñanza convencional sin ningún entrenamiento en estrategias. Ambos grupos completaron la sección de comprensión auditiva del Preliminary English Test (PET) y el (MALQ) al principio y al final del estudio. Los resultados indicaron que la instrucción en estrategias de comprensión auditiva tuvo generalmente un impacto positivo en la comprensión auditiva y la conciencia metacognitiva del uso de estrategias de los alumnos. Más específicamente, el grupo de intervención superó al grupo de control en la prueba posterior de competencia auditiva y en el MALQ. El examen de los factores MALQ mostró aumentos significativos en las estrategias de resolución de problemas, traducción mental y planificación-evaluación, pero disminuyó la atención dirigida y el conocimiento de la persona para el grupo de intervención. Los hallazgos sugieren un efecto positivo de la instrucción explícita de estrategias auditivas sobre la comprensión auditiva.

Introduction

Listening is of vital importance in English as a Foreign/Second Language (EFL/ESL) learning as it is a major source of input for language learners, it is more frequently used than other skills, and it can grant access to other language skills (Siegel, 2014; Vandergrift, 2007). Despite its importance in L1 and L2 contexts, there is a general belief that listening is a challenging skill to teach (Siegel, 2015), the most difficult skill to master by learners (Renandya & Farrell, 2011), the least-researched among language skills (Graham & Santos, 2015), and that it receives the least attention in teacher manuals and L2 instructional materials (Field, 2012; Vandergrift & Goh, 2012). Thus, both researchers and teachers believe that listening is a significant skill in the L2 context, but many teachers do not know how to teach it.

Teachers often do not teach listening in such a way that strategies and processes embedded inside a text are revealed to learners and repeatedly practiced inside the foreign language classroom. It is more common for teachers to exploit listening to teach other skills, such as writing and speaking (Vandergrift & Goh, 2012). However, when they teach listening, teachers often ask learners to write down the words they hear in conversational exchanges and complete listening activities in tests where only part of the text

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is comprehensible (Graham, 2017). This method of teaching listening is much like testing learners' current level of aural text comprehension rather than teaching them how to listen. This approach of teaching listening in which teachers rely heavily on the status quo "Listen, Answer, Check" (Siegel, 2015, p.5) sequence has been called the Comprehension Approach by Field (2008). This approach does not teach effective use of listening strategies, and it may not be the best way to help learners improve their listening comprehension.

An alternative to the Comprehension Approach is the Process Approach, which emerged as a new approach to teaching listening in the 1970s. This aimed at describing the listening strategies and the processes (bottom-up processing, top-down processing or both) learners used to comprehend aural input. Attention to the learning strategies used by successful language learners, which could be taught to the unsuccessful learners, has grown in the field of language learning. As a result of this increased attention, researchers have examined how listening strategy instruction influences language learners' listening performance. However, there is no consensus among researchers on whether listening strategy instruction leads to positive or negative results in different proficiency groups (Berne, 2004; Hassan et al., 2005). In a systematic review article on the effectiveness of strategy instruction, Hassan et.al (2005) found that only five out of 38 studies were directed towards listening, and of these five only one (Thompson and Rubin, 1996) pointed to the positive effect of strategy instruction on listening comprehension. In his meta-analysis review article, Plonsky (2011) stated that few studies on listening have explored the impact of listening strategy instruction on listening proficiency. He confirmed that research on listening strategy instruction suffered from methodological and theoretical flaws such as lack of a solid model of strategy instruction and that "negligible effects resulted from studies with listening, … as dependent variables" (p. 1010) among learners from various contexts. In addition, while much attention had been paid to the English language in the contexts of Canada, United States, Japan and China (Cross, 2009), the present study is conducted to examine the effect of listening strategy instruction on listening comprehension and metacognitive awareness of strategy use of Iraqi EFL learners, and on each factor of the Metacognitive Awareness of Listening Questionnaire (MALQ) in particular. This study used a quasi-experimental pre-test and post-test research design with standardized English tests.

Empirical Studies on Listening Strategy Instruction

The empirical literature on second or foreign language listening strategy instruction is limited (Ngo, 2019; Plonsky, 2011, Renandya & Farrell, 2011). Little research has focused on strategy instruction to raise students' awareness of cognitive and metacognitive strategies (Chou, 2016). There is also a lack of consensus on whether or not strategy instruction could benefit learners in developing their listening comprehension and metacognitive strategy use. Researchers are not unanimous about the effects of strategy instruction; there are studies supporting the beneficial effects of listening strategy instruction on the listening ability of EFL/ESL learners (Siegel, 2015; Vandergrift & Goh, 2012). On the contrary, there are also researchers who are doubtful about such claims, including Swan and Walter (2017) who argue that there is no need for explicit listening instruction. They believe that listening can be practiced and learned by exposure to the listening tasks. Some of the recent studies on the effects of listening strategy instruction on learners' listening comprehension have led to negative results (Cross, 2009; López, 2017; Milliner & Dimoski, 2019; O'Malley et al., 1985; Sharaf et al., 2018; Taguchi, 2017; Tanewong, 2018; Zobler, 2010), which raises doubts about the effectiveness of listening strategy instruction. In an update of his 2011 meta-analysis study, Plonsky (2019) has declared that the effect of language learning strategy instruction on listening is quite weak due to its covert nature, difficulty inherent in the aural performance, and the difficulty in measuring the construct of listening. Other researchers studying the effects of listening strategy instruction (Berne, 2004; Hassan et al, 2005; Plonsky, 2011) have had mixed results, indicating a possible mix of advantages and disadvantages following strategy instruction.
However, there are also many studies pointing to positive results of instruction on listening comprehension and metacognitive awareness of strategy use. They are summarized in Table 1.

Researcher(s)	Participants	Effect of instruction on	
		Listening Comprehension	Metacognitive awareness
Thompson & Rubin (1996)	36 American High-intermediate learners of Russian	Improved	Not measured
Graham & Macaro (2008)	68 English Lower-Intermediate learners of French	Improved	Not measured
Vandergrift & Tafaghodtari (2010)	106 Canadian High-beginners and low-intermediate learners of French	Improved	Increased
Siegel (2012)	54 Japanese Advanced learners of English	Improved	Not measured
Lotfi et al. (2012)	206 Iranian pre-intermediate & intermediate learners of English	Improved	Not measured
Siegel (2013)	54 Japanese upper-intermediate learners of English	Improved	Not measured
Goh & Hu (2014)	113 Chinese intermediate learners of English	Improved	Increased
Rahimirad & Shams (2014)	50 Iranian lower-intermediate & upper-intermediate learners of English	Improved	Increased
Movahed (2014)	55 Iranian beginner learners of English	Improved	Increased
Bozorgian (2014)	30 Iranian high-intermediate learners of English	Improved	No effect
Maftoon & Alamdari (2016)	60 Iranian intermediate learners of English	Improved	Increased
Mahdavi & Miri (2016)	60 Iranian high-beginner learners of English	Improved	Increased
Bozorgian & Alamdari (2018)	180 Iranian advanced learners of English	Improved	Increased
Ngo (2019)	27 Vietnamese pre-intermediate learners of English	Not tested	Increased

Table 1: Previous studies of positive results of instruction on listening comprehension and metacognitive awareness of strategy use

A review of these studies indicates the following: a) listening strategy instruction often seemed to improve learners' comprehension and metacognitive awareness of strategy use; b) the results of some of these studies are inconclusive as documented in the meta-analysis reports of Berne (2004), Hassan et. al (2005), Macro (2006), and Plonsky (2011); c) these studies suffer from certain inherent methodological shortcomings, for example, the low number of participants, the unreported validity and reliability of the listening tests, and the use of local tests to measure learners' level of listening proficiency; d) these studies have mostly adopted quantitative approaches to measuring the results of listening strategy instruction following different models of instruction such as Cognitive Academic Language Learning Approach (CALLA), Metacognitive approach, strategy-based instruction and Need-based integrated listening strategy instruction. (e.g., Graham & Macaro, 2008; Thompson & Rubin, 1996; Vandergrift & Goh, 2010); e) they have examined the effect of listening strategy instruction on listening comprehension for few languages, including English, French, Russian, and Spanish, and few studies examined other languages; f) there is a dispute over whether teaching listening should focus on metacognitive strategies as in studies like Bozorgian and Alamdari (2018) and Vandergrift and Tafaghodtari (2010) or on both cognitive and metacognitive strategies as in Graham and Macaro (2008), Lotfi et al. (2012), and Siegel (2013).

In order to assess learners' metacognition developments at any time throughout a course of instruction, MALQ is used by many researchers either a research instrument or learning tool in teaching listening processes (Vandergrift & Goh, 2012). The MALQ is a self-report questionnaire that can be used for three purposes: to reflect on the learners' listening strategy use and person knowledge, to assess their metacognitive awareness of the process of listening comprehension, and to trace the learners' metacognitive development at any time during instruction (Goh, 2018). The MALQ is a highly validated, and reliable instrument (Goh, 2018; Vandergrift et al., 2006) which is used to raise learners' awareness of the processes underlying second/foreign language listening (Vandergrift, 2007). The MALQ is intended to examine five factors of metacognitive strategy use: problem-solving, planning-evaluation, mental

translation, directed attention, and person knowledge (Vandergrift et al., 2006). The first four factors are intended to measure metacognitive knowledge of listening processes while the last factor measures the learners' confidence in target language listening.

Therefore, there is a need for more experimental or quasi-experimental studies to shed light on the actual difference strategy instruction may make in different language learning contexts. Hence, in this study, the researcher tested the effectiveness of a listening strategy instruction program in which metacognitive and cognitive strategies are taught in intact classes, and then listening comprehension is tested using a standardized test with a large group of Iraqi EFL learners for more generalizability (Cross & Vandergrift, 2015; Siegel, 2013; Yeldham & Gruba, 2014).

To the best of the researchers' knowledge, no study has examined the impact of listening strategy instruction in the context of Iraq. Therefore, further research is needed to examine the impact of a process-based listening strategy instruction course on Iraqi learners' listening comprehension and their metacognitive awareness of strategy use. In so doing, the following questions will be addressed:

1) *Does listening strategy instruction have a significant impact on developing Iraqi EFL learners' scores on a listening comprehension test?*
2) *Does listening strategy instruction have a significant impact on the learners' metacognitive awareness of strategy use?*
3) *Does listening strategy instruction have a significant impact on each factor of the MALQ?*

Methodology

This is a quasi-experimental classroom-based study, with a pretest/posttest design. Two intact classes from the same department of English shared the same first language Arabic; one class served as an intervention group (n= 30) and the other as a control group (n= 30). Quantitative and qualitative data were collected from both groups before and after the intervention phase to investigate the impact of listening strategy instruction on listening comprehension and metacognitive awareness of strategy use for Iraqi EFL learners. The researcher decided which listening strategies to teach to the intervention group during the regular class time based on the texts provided in the listening book.

Participants

The participants of the present study included a group (n=60) of sophomore Iraqi EFL learners, between 19 and 20 years old, studying English in the College of Education at the Iraq for the purpose of becoming high school teachers. They had studied English in previous school settings for at least nine years. Their listening proficiency level ranged from Basic User (Level A2) to a low-intermediate level (Level B1) according to the CEFR (Cambridge English, 2019).

Instruments

The first instrument was the listening section of the Cambridge Preliminary English Test (PET) which was used to measure the listening proficiency of participants at the beginning and at the end of the study. The listening section consisted of four parts. In the first part, there were seven short informal monologues or dialogues accompanied by pictures with three-option multiple-choice items. In the second part, there was a long monologue or interview with six three-option multiple-choice items. In the third part, there was a longer monologue with six gaps to fill in with one word. In the fourth part, there was a longer informal dialogue in which examinees had to decide if the six statements were correct or incorrect. In total there were 25 listening items. Each item carried one mark. The reliability of the pretest and post-test as measured by Cronbach's alpha for was .76 and .80 respectively for the intervention group and .77 and .75 for the control group.

The second instrument was the MALQ developed by Vandergrift et.al (2006), which measured learners' metacognitive awareness of listening and the listening strategies they reported to use. Since some of the words in the questionnaire were difficult for the learners to understand, alternative words with the same meaning were placed next to the difficult words (see adapted questionnaire in the Appendix). The questionnaire consisted of 21 items measuring five areas of strategy use: problem-solving, planning-evaluation, mental translation, direct attention, and personal knowledge. This questionnaire was a six-

point Likert scale ranging from strongly disagree (1) to strongly disagree (6), administrated once at the beginning of the term before the instruction and once after the intervention. The factors comprising the MALQ are presented in Table 2. The Cronbach's alpha reliability reported for the intervention group at pretest and post-test was .78 and .80 respectively, and for the control group it was .77 and .75.

MALQ Factors	Number of Items	Items
Planning-evaluation	5	1,10,14,20,21
Mental translation	3	4,11,18
Problem-solving	6	5,7,9,13,17,19
Directed attention	4	2,6,12,16
Person knowledge	3	3, 8, 15

Table 2: Factors of Metacognitive Awareness of Listening Questionnaire

Procedure

Before the main study, a pilot study was conducted to determine the type of listening proficiency test that was appropriate to the level of participants. The researcher asked twenty learners to take either the listening section of First Cambridge English (FCE) or the listening section of the Preliminary English Test (PET) (10 learners for each test). All the participants who took the FCE listening section failed the test indicating that The FCE was too difficult for these learners. Therefore, PET listening section was used to measure the listening proficiency level of the participants.

The MALQ was also distributed among pilot participants in order to see if they had any difficulty in comprehending the items of the questionnaire and determine the time needed for completion of the test. Since the participants had difficulty comprehending the meaning of certain words, a modified version of MALQ was developed in which the difficult words were supplemented with easier words. The time for completion of PET and MALQ was approximately 60 min.

In the main study, participants (n= 60) first took the listening part of the PET followed by the MALQ. Two intact classes are assigned with one as intervention group (n=30) and the other as control group (n= 30). The intervention group was taught process-based listening strategy instruction (Siegel, 2015), whereas the control group was taught following the conventional teaching of listening regularly used by Iraqi teachers which is based on listen-answer-check method of teaching and did not receive any strategy instruction. Both groups received ten 100-minute sessions of instruction over ten weeks.

The intervention group received explicit and integrated metacognitive and cognitive strategy training. Explicit strategy instruction means that strategies are named, explained with examples to show their usefulness, and practiced overtly within a listening text. Integrated strategy instruction means that strategies are taken from the existing course book and explained to the learners to help them see directly the application of the strategy use within the situation in which used.

This training was based on Siegel's (2015) proposals for strategy-based listening comprehension instruction. This instructional plan focuses on Top-Down Processing (TDP) that can be activated at the beginning of listening input and helps learners reduce the range of possible meaning for an aural text by focusing on the context of the text and activating their prior knowledge. TDP brings attention to the learners' preconceptions about what they will hear even before processing the listening input (Vandergrift & Goh, 2012). These preconceptions are based on the knowledge the listeners bring to the text using their thoughts about the topic of the text, prior knowledge of the text, and the context of the text, interlocutors, location, and situation. Activating this knowledge in the beginning can help narrow the potential topical and lexical items (vocabulary) that listeners are expecting to hear. This could help listeners to start forming expectations without waiting for the comprehension of the incoming text, which in turn can limit their interpretation of the aural input making listening much easier to comprehend (Siegel, 2015).

Instruction followed the three sequential stages for listening comprehension proposed by Siegel (2015): focus on context (TDP), focus on linguistic aspects (BUP), and final comparison of linguistic input and context (TDP & BUP). The listening process in this model represents a balance between TDP and BUP to achieve listening comprehension. Focusing on TDP before listening can help learners form hypotheses and expectations about what they are likely to hear (unlike Anderson's models which start with BUP focusing on linguistic knowledge). In the second stage, the cognitive processes that deal with input at the linguistic level are activated such as listening for gist, inferencing, elaboration, and note-taking. In the final stage, input reaches the stage of comparison between the information (the linguistic input) and experience (context knowledge). On the basis of this comparison, connections are made and then stored in the long-term memory. Siegel (2015) developed a model of process-based listening strategy instruction in which he focused on the development of two elements: process-based tasks and listening strategy instruction. The process-based task element comes from the theories of TDP and BUP, teacher modelling which is essentially based on teacher's knowledge of listening processes, and strategies that they can elicit from aural texts and introduce to learners to be emulated and practiced. The listening strategy instruction element includes the incorporation of cognitive and metacognitive strategic mental activities that teachers use to understand and teach to learners.

The goals Siegel's process-based instruction model are to increase learners' listening confidence, advance their knowledge of the listening processes and strategies they use for example texts, and evolve their abilities to transfer these processes and strategies to novel listening events or tasks whether in or beyond the L2 listening classroom (Siegel, 2014). This strategic approach, attempting to empower learners, has capitalized on listening processes that can be transferred from L1 to L2, aspects of TDP and BUP, listening strategies instruction and teacher modeling of the processes and the strategies in an oral text. It is designed to build skills such as planning, monitoring, focusing attention, evaluation, prediction, interference, elaboration, listening for gist, listening for detailed, phoneme discrimination and word segmentation.

The course book Real Listening and Speaking 3 by Graven (2008), assigned for teaching listening at the Department of English for sophomore level, was used with both groups of participants. The book included a wide range of authentic texts with monologues and dialogues representing native and non-native accents. The course book contained listening activities representing a variety of contexts, transcripts of the listening texts and answer keys for the exercises in each unit of the book. It also included activities intended to introduce and practice strategies. The researcher integrated the listening strategies into the listening texts with the intervention group (Kaivanpanah et al. 2020). In each lesson, the listening strategies were taught based on the following plan:

1. *The teacher introduced the topic and the type of text. New words were presented. Learners' schemata were activated; their awareness of previous similar experiences was raised.*
2. *Learners were taught how to think-aloud after listening to the text. Top-down and bottom-up listening strategies were introduced.*
3. *Strategies were introduced and reviewed with useful examples taken from the texts and then combined with other strategies to be recycled in new listening texts and tasks.*
4. *Learners listened to another audio text and used the strategies that they just learned.*
5. *Learners kept a diary and wrote about their performance while listening to a text.*
6. *Learners were given short listening tasks as homework. They were provided with another course book, North Star 3 Listening and Speaking by Solórzano and Schmidt (2015), where they could do exercises.*

The control group received the same audio texts and was taught by the same teacher. The teacher played the audio texts and asked the learners to listen carefully and answer the comprehension questions. After answering questions, the teacher played the audio text again to ensure that learners had comprehended the text. No direct instruction of strategies was provided by the teacher.

Both the intervention and the control group spent the same amount of time learning listening in each class session. While the intervention group had invested most of the time of the lecture in learning and practicing listening strategies, the control group spent the time in listening to the same audio texts multiple times without any introduction or practicing of strategies and then got their answers checked by the teacher. In order to give further opportunities to practice strategies and raise their awareness of

strategy use outside of class, the intervention group were asked to follow the same procedures they did in class, and practice the learned strategies at home on the assignment textbook activities. They were provided with a scaffolding sheet during class-time in which the strategies are defined and exemplified, to remind them continuously of the strategies and raise their metacognitive awareness. Learners were also asked to keep the scaffolding sheet as a diary with them whenever they come across a listening task and add to it whatever they think they might use or think about during listening. Homework assignments were checked on the next lecture with some feedback on the strategies learned previously and any other difficulties they might encountered during listening. The control group were asked to practice listening to the same assignment textbook activities for homework. They were told to report difficulties they might face during listening.

After the treatment, the researcher administered another listening section of PET to compare the performance of both groups before and after the intervention and to measure the impact of the process-based listening strategy instruction on the listening comprehension on the intervention group. The modified MALQ was also administered to all participants at the end of the study to examine the impact of listening strategy instruction on their overall metacognitive awareness of strategy use.

Results and Discussion

In order to examine the impact of listening strategy instruction on listening comprehension (research question 1), the mean scores of the intervention and the control groups on the listening section of the PET post-test were compared. First, the mean scores on the PET listening section for both groups at the pre-test were compared using independent samples t-test to ensure that they were similar at the outset of the study. The descriptive statistics of listening comprehension test results from the intervention (M=6.70, SD= 2.42) and the control (M=6.83, SD=2.93) groups are summarized in Table 3. An independent samples t-test showed the mean difference between the groups at pretest was not significant, indicating that the two groups were similar in terms of listening comprehension test scores as indicated in Table 4. The p-value was calculated to be (0.20) which was greater than 0.05.

An independent samples t-test was used to compare the mean scores differences between both groups at post-test. The descriptive statistics of the mean scores of the listening comprehension test at posttest phase for the intervention group (M=10.40, SD= 2.82) and the control group (M=8.50, SD= 3.15) were compared indicating that the mean post-test listening comprehension scores of the learners in the intervention group were significantly higher than those of the control group (p = .01), as shown in Table 4. It was clear that the intervention group had significantly outperformed the control group, suggesting that there was a positive impact of listening strategy instruction on learners' listening performance. This result is in line with other previous studies such as (Bozorgian, 2014; Bozorgian & Alamdari, 2018; Graham & Macaro, 2008; Maftoon & Alamdari, 2016; Rahimirad & Shams, 2014; Vandergrift & Tafaghodtari, 2010; Yeldham & Gruba, 2014, among others) and at variance with the results of Cross (2009), Rahimi and Katal (2013), Sharaf et al. (2018), Taguchi (2017); Tanewong (2018), and Zobler (2010). The results of the present study also confirmed those of similar studies conducted in the Iranian EFL context (e.g., Bozorgian, 2014; Bozorgian & Alamdari, 2018; Maftoon & Alamdari, 2016; Rahimirad & Shams; 2014).

Group	Pretest		Posttest	
	M	SD	M	SD
Intervention	6.70	2.42	10.40	2.82
Control	6.83	2.93	8.50	3.15

Table 3: Descriptive statistics for the two groups in pre-and post-test of listening comprehension

	T	Df	P
Pretest of PET	0.19	58	0.20
Posttest of PET	2.45	58	0.01

Table 4: Independent-Samples t-test comparing both Groups in the Pretest and Posttest

Regarding the impact of listening strategy instruction on learners' metacognitive awareness of strategy use (research question 2), the scores obtained by both groups at pre-test and post-test on the MALQ were compared using an independent samples t-test (Table 5). There was no significant difference between the groups on the MALQ at pretest phase (p=0.33) as indicated in Table 6. MALQ posttest scores of both groups were also compared to examine the effect of instruction on the metacognitive awareness of listening strategy use. The results of an independent samples t-test showed that the difference between the two groups was significant. Comparison of the mean scores of the intervention and control group indicated that the mean scores of the intervention group increased more than the control group, suggesting that the instruction had a positive effect on increasing learners' metacognitive awareness of strategy use. According to these findings, learners reported using more facilitative listening strategies after receiving listening strategy instruction as described above. These findings confirm the findings of other previous studies such as Goh and Hu (2014), Maftoon and Alamdari (2016), Mahdavi and Miri (2016) and Vandergrift, et al. (2006) among other studies which showed that strategy instruction had a positive impact on the learners' metacognitive awareness, and they contradict findings of other studies such as Bozorgian (2014), Tanewong (2018), and Zobler (2010) which indicated that strategy instruction had no effect on the learners' listening comprehension.

Group	Pretest		Posttest	
	M	SD	M	SD
Intervention	80.21	16.65	82.04	15.72
Control	77.79	15.01	77.31	17.73

Table 5: Descriptive statistics for the intervention and the control groups in the pretest and posttest of MALQ

	T	Df	P
Pretest of MALQ	1.51	58	0.33
Posttest of MALQ	3.63	58	0.03

Table 6: Independent-samples t-tests of the two groups in the pretest and posttest of MALQ

To examine the effect of listening strategy instruction on each factor of the MALQ (research question 3), a paired samples t-test was used comparing the data obtained from the intervention group before and after the intervention course. Table 7 presents the mean score and the standard deviation with the p-value for each factor.

MALQ Factors	Pre-test		Post-test		Mean difference	*t*	P-value (*=sig)
	Mean	SD	Mean	SD			
planning and evaluation	18.56	4.52	20.56	3.61	2.00	2.68	.012*
mental translation	7.33	2.79	9.06	2.03	1.73	3.04	.005*
problem-solving	27.50	3.64	29.06	3.16	1.56	3.13	.004*
directed attention	15.96	3.07	15.03	3.48	-.933	1.13	.264
person knowledge	9.66	2.74	7.33	2.94	-1.33	2.00	.040*

Table 7: Paired samples t-test of MALQ for the intervention group

The analysis of each factor was helpful in shedding more light on learners' metacognitive awareness for each strategy. As seen in Table 6, there was a positive increase in learners' strategy use for planning-evaluation, mental translation, and problem-solving factors. A decrease is noted in the use of strategies related to directed attention and person knowledge factors, although the change in directed attention was not statistically significant.

Planning-evaluation strategies are assessed in items 1, 10, 14, 20, and 21 of the MALQ. This factor includes two types of strategies: planning strategies and evaluation strategies. Planning strategies

comprise items 1, 10, and 21 and intend to elicit strategies learners use to make a plan before listening to a text; this includes activating their prior knowledge of the topic (schemata activation), setting a goal in mind, and making a plan about how to listen (Goh & Hu, 2014; Vandergrift et al., 2006). The evaluation strategies represent the strategies used by the learners to monitor and evaluate their performance during listening by checking the accuracy of their comprehension and evaluating the effectiveness of strategies to determine their success in achieving a listening task (Goh & Hu, 2014; Maftoon & Alamdari, 2016; Vandergrift et al., 2006). The participants in the intervention group reported an increased use of planning and evaluation strategies after receiving the instruction. The mean differences between pre-test and post-test was significant at ($p = <0.05$) suggesting that listening strategy instruction enabled the learners to plan for listening, and evaluate their efforts and satisfaction with the on-going interpretation during listening.

There was a significant change after listening strategy instruction on the second factor of the MALQ, mental translation ($p = <0.05$). Mental translation strategies (MALQ items 4, 11, and 18) represent the strategies listeners need to avoid in order to be more proficient listeners (Goh, 2018; Vandergrift et al., 2006). The mental translation strategies include three forms of translation including translating word-by-word, key words, and more general online translation (Vandergrift et al., 2006). The findings indicate that the participants in the intervention group reported using mental translation strategies less frequently than they did before. Listening strategy instruction may have helped the learners stop resorting to mental translation strategies and decreased their use of mental translation.

The mean difference between pre-test and post-test scores were also statistically significant ($p = < 0.05$) in the third factor of the MALQ, problem-solving strategies, suggesting that learners in the intervention groups were able to infer and monitor their inferences of unknown words and comprehension during listening. Problem-solving strategies include inferencing strategies (items 5, 9, and 17) and monitoring strategies (items 7, 9, and 19). The inferencing strategies aim at using the known words, general ideas or perception of the text, and past experience and knowledge to infer the unknown words in the listening text. The monitoring strategies are used by participants to compare the meaning of the inferred words with their general understanding of the topic, modify their inferencing strategies when they find it does not seem logical, and evaluate their understanding of the text.

The fourth factor of the MALQ is the directed attention strategies which describes how learners use strategies to maintain their focus on the listening tasks (Vandergrift et al., 2006). This factor comprises items 2, 6, 12, and 16 which represent what listeners do when they face a comprehension problem (i.e., they may either focus more on the text or give up listening) or when losing concentration (i.e., they may either try to recover their concentration or get back on the listening task) (Goh & Hu, 2014). The participants of the intervention group did not report significantly changed use of directed attention strategies during listening ($p = 0.26$). These participants reported that they usually lost concentration and could not get back on task when facing a difficulty in understanding, to a similar degree as before instruction. This lack of improvement may be due to two reasons. First, these learners were at the early stages of English language learning; their limited knowledge of vocabulary makes them face difficulties in obtaining information from the text and this frustrates them. Second, learners might have heavily relied on the use of bottom-up strategies which were not always helpful in enabling them to interpret the message of the text; this may have distracted them from returning their attention to the task (Goh & Hu, 2014; Maftoon & Alamdari, 2016).

MALQ scores for the last factor, person knowledge, also changed significantly for the intervention group. The person knowledge factor includes items 3, 8, and 15 that relate to learners' perception of difficulty of listening, their self-efficacy while listening, and their listening anxiety level (Goh, 2018; Vandergrift, et al., 2006). In this case, the significant change ($p=0.04$) was in the negative direction. With their lower scores on person knowledge, participants in the intervention group indicated a decrease in listening anxiety level, increased self-efficacy, and a change in their belief about listening as a challenging skill.

Conclusion

The present study investigated the impact of process-based listening strategy instruction on improving listening comprehension and metacognitive awareness of strategy use in Iraqi EFL English learners. Using a process-based listening strategy instruction model adopted from Siegel (2015), explicit and integrated

metacognitive and cognitive strategies were taught during the intervention course lasting for ten weeks. The results indicated that listening strategy instruction can contribute significantly to the listening comprehension of the learners and can increase their metacognitive awareness of strategy use. In particular, listening strategy instruction seemed to increase learners' reports of metacognitive awareness of problem-solving, mental translation, and planning-evaluation and person knowledge strategies, whereas it did not significantly affect their directed attention strategies. The finding indicated that learners can use facilitative listening strategies when dealing with listening tasks.

The findings of the present study indicated that process-based instruction can be integrated into regular lesson plans of Iraqi teachers. Listening strategy instruction capitalizes on listening as a process (teaching listening), not as a product (testing listening), which suggests the importance of prior instruction aimed at assisting the learners to implement strategies during listening activities. Further research is needed to investigate whether Iraqi teachers are aware of teaching listening strategies or not, and how they might incorporate listening strategies in their classrooms.

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Appendix
A modified version of the Metacognitive Awareness of Listening Questionnaire (MALQ)

The statements on the following page describe some strategies for listening comprehension and how you feel about listening in the language you are learning. Do you agree with them? This is not a test, so there are no "right" or "wrong" answers. By responding to these statements, you can help yourself and your teacher understand your progress in learning to listen. Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement.

	Strongly disagree	**Disagree**	**Slightly disagree**	**Partly agree**	**Agree**	**Strongly agree**
For example:						
I like learning another language	**1**	**2**	**3**	**4**	**5**	**6**

1. Before I start to listen, I have a plan in my head for how I am going to listen.	1 2 3 4 5 6
2. I focus harder on the text when I have trouble understanding.	1 2 3 4 5 6
3. I find that listening is more difficult than reading, speaking, or writing in English*	1 2 3 4 5 6
4. I translate in my head as I listen.*	1 2 3 4 5 6
5. I use the words I understand to **guess** (assume) the meaning of the words I don't understand.	1 2 3 4 5 6
6. When my mind wanders, I recover my **concentration (attention) right away.**	1 2 3 4 5 6
7. As I listen, I compare what I understand with what I know about the topic.	1 2 3 4 5 6
8. I feel that listening comprehension in English is a **challenge** (difficult) for me. *	1 2 3 4 5 6
9. I use my experience and knowledge to help me understand.	1 2 3 4 5 6
10. Before listening, I think of similar texts that I may have listened to.	1 2 3 4 5 6
11. I translate key words as I listen. *	1 2 3 4 5 6
12. I try to get back on **track** (course) when I lose **concentration** (attention).	1 2 3 4 5 6
13. As I listen, I quickly adjust (correct) my **interpretation** (understanding) if I realize that it is not correct.	1 2 3 4 5 6
14. After listening, I think back to how I listened, and about what I might do differently next time.	1 2 3 4 5 6
15. I don't feel nervous when I listen to English.	1 2 3 4 5 6
16. When I have difficulty understanding what I hear, I give up and stop listening.*	1 2 3 4 5 6
17. I use the general idea of the text to help me **guess** (assume) the meaning of the words that I don't understand.	1 2 3 4 5 6
18. I translate word by word, as I listen.*	1 2 3 4 5 6
19. When I guess (assume) the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.	1 2 3 4 5 6
20. As I listen, I **periodically** (frequently) ask myself if I am **satisfied** (pleased) with my level of comprehension.	1 2 3 4 5 6
21. I have a goal in mind as I listen.	1 2 3 4 5 6

Items with * were reversely coded and scored.