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EFL TEACHERS' PERCEPTIONS AND REPORTED TECHNIQUES IN TEACHING LISTENING INFERENCING SKILLS

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Abstract:
This research aims were to examine teachers' perceptions of listening inferencing skills (LIS) and their significance for listening comprehension. In addition, the pedagogical techniques that teachers report to have employed in teaching LIS were also investigated. In order to achieve these goals, a questionnaire consisting of 48 five-point Likert scale items and one open-ended question was utilized as the research instrument. Seventy-two EFL teachers working at different universities, colleges and private language centres in a province in the Mekong Delta, Vietnam gave their responses to the questionnaires. The results revealed that a significant number of teachers appeared to hold a limited understanding of what LIS actually refer to. However, when they were introduced to what LIS involve, they noticeably reached the agreement that these skills are beneficial for listening comprehension in particular and language learning in general. Besides, a large number of the participants also reported that they applied LIS in their own English language learning and teaching. In terms of pedagogical techniques used to teach LIS, the teachers mainly concentrated on pre-listening tactics with the hope of equipping their students well for the listening process regarding linguistic and background knowledge while techniques for the while-, post- and extension stages in listening instruction seemed to be overlooked.

Keywords: listening inferencing skills, listening strategies, teachers' perceptions, pedagogical techniques

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1. Introduction

Listening comprehension is both a prerequisite for communication and an essential channel to acquire languages (Field, 2008; Hamouda, 2013; Nunan, 2008; Rost, 2011). Nevertheless, in comparison with other skills, listening has been paid noticeably less attention to by teachers and learners although it is commonly suggested to be the most difficult skill to learn and consequently to teach (Rost, 2011; Simasangyaporn, 2016). In other words, listening comprehension has long been neglected and poorly taught to some extent in many EFL programs (Mendelsohn, 1994). Acknowledging this issue, an increasing body of research has been conducted to investigate how listening comprehension can be effectively developed. It is suggested that to listen effectively, listeners must own the ability to apply a variety of strategies to construct meaning, decode the message and respond to what is said in various ways, depending on the communicative purpose (Gilakjani & Ahmadi, 2011). The use of suitable strategies in listening processes could help students prepare themselves better, reduce their listening anxiety and enhance their self-efficacy in terms of achieving listening comprehension. Zhang (2012), in her study examining on the effects of strategy training on listening, identified inferencing as one of the key listening tactics that enhance listening capacity, along with self-monitoring, and elaboration.

Inferencing skills (IS) are the abilities to guess the meaning of new words, fill in missing parts or predict outcomes based on one's schemata and context clues (Zhang, 2012). The significance of IS is stated by Rost (2002) as he claims that listening comprehension is an inferential process which indicates that making inferences is not optional but indispensable during listening. Likewise, Freed and Cain (2017) maintain that for listening comprehension, inferences are essential. A listener makes inferences from a text's information and his prior knowledge as he builds a mental model of the text's meaning in order to interpret it deeply (Garnham, 2010; Cain & Oakhill, 1999). According to research, IS have a high potential for facilitating receptive processes, including reading comprehension and listening comprehension. However, while the relationship between IS and reading has received much attention, little research has concentrated on the role of inferential strategies in listening comprehension. Furthermore, because listening has been identified as one of the hardest skills to learn and teach in the EFL context due to its covert nature, compensating techniques such as inferencing could greatly aid this comprehension process. In this sense, understanding the relationship between IS and listening comprehension is crucial.

In combination with learning strategies, strategy instruction with specific pedagogical techniques takes an essential role in improving students' listening comprehension (Cohen, 1990). Similarly, Gilakjani and Ahmadi (2011) claimed that teaching listening techniques is also considered as one of the crucial factors contributing to learners' listening comprehension levels. However, not all teachers are fully aware of the significance of effective pedagogical listening techniques in general and ones to develop students' IS in particular. For some teachers, teaching listening is the easiest of

all English courses. All they do is play the audio or video a couple of times, let students listen and do comprehension exercises, play the tape one more time and check the answers. In other words, teachers tend to employ each listening task in their teaching as a listening test, rather than focusing on teaching or helping learners develop listening skills and strategies. This could be the reason why a large number of available listening courses fail to enhance learners' listening capacity. Moreover, with respect to teaching listening, few studies have examined what teachers know and believe about listening and what they actually do to teach this essential skill. Thus, it is necessary to understand teachers' perceptions and practices in teaching listening strategies like IS.

As aforementioned, listening skills have been long undertaught in EFL classes. It seems that only university or college English-majored curricula have a focus on teaching these vital skills. In this context, students are required to and, thus, have a valuable opportunity to access useful strategies which are beneficial to upgrade their listening capacity. Besides, these days, EFL teachers at language centres seem to make more room for listening comprehension since it is not only necessary for communicative abilities but also an indispensable part of international proficiency tests such as IELTS, TOEIC, or TOEFL. Therefore, gaining insights into how teachers in these teaching contexts perceive listening comprehension and listening strategies, IS included, as well as how they train their students to utilize the strategies could be highly advantageous to enhance both teachers' pedagogical competence and students' listening performance. As a response to this pressing need, the present study focuses on exploring the teachers' perceptions and their reported strategies in teaching LIS in universities and language centres in Vietnam.

2. Literature review

2.1 Teachers' perceptions and its relation to pedagogical techniques

The construct of perception itself is a well-established notion in the literature with much discussion over what the concept means and encompasses. According to Hornby (2003), for instance, perception is how one acknowledges things, especially with the senses; it could be an idea, a belief or an image, which is a result of how one sees or understands something. In other words, the perception or belief of someone is that person's point of view towards a certain thing they expose, an event they experience or more generally, the world they are living in, which significantly affects their decisions and behaviours.

In education, Pajares (1992) claims that every teacher has his or her own perceptions and this mental system impacts how they perceive, judge and assess a certain event, which consequently impacts their behaviours in the classroom. Hence, understanding teachers' belief structures is essential to improve their professional preparation and teaching practices. In addition, teachers' perceptions about themselves as a teacher, about students, about the learning and teaching process, the purpose of schooling, the role of schools in society, the curriculum and pedagogy are all components which make up teachers' beliefs regarded as their self-orientation to teaching (Porter & Freeman, 1986). It is said that teachers' perceptions could determine the amount of their

energy and the ways to spend this resource in their classes. Likewise, EFL teachers' perceptions of themselves and pedagogical techniques could not only affect their teaching behaviours but also students' learning outcomes. In other words, there appears to be a strong connection between what the teachers perceive and what they actually do in the classroom context.

Although the relationship between EFL teachers' perceptions and their pedagogical practices has been widely investigated, there is no consistency in the conclusions drawn up from these studies. Melketo (2012) asserted that the correlation between teachers' beliefs and practices is controversial and complex. The underlying reason could be that teachers' beliefs directly impact their perceptions of teaching and learning processes resulting in a variety of classroom practices (Clark & Peterson, 1986; Clark & Yinger 1987, cited in Aksoy, 2015). Whereas many researchers found that what teachers say and do in the classroom are driven by their perceptions (Yim, 1993; Ng & Farewell, 2003), sometimes teachers' pedagogical practices are hampered and fail to reflect what teachers, in fact, perceive due to a number of contextual factors such as society demands, curriculum requirements, school policies, classroom sizes, availability of teaching resources (Borg, 2003). Thus, more research is needed so as to explore further the relation between teachers' perceptions and how they implement their teaching in classroom contexts.

2.2 Inferencing skills

A remarkable amount of EFL learning and teaching literature has been devoted to the exploration of inferencing skills, which are so-called inferential techniques or inference-making abilities. Thus, numerous definitions of these skills have been drawn up. O'Malley and Chamot (1990) define inferencing skills as the abilities to guess the meaning of new words, predict outcomes or complete missing parts using the information in a text. This concept seems to overlook the importance of students' prior knowledge in inferential processes. In contrast, Vandergrift and Goh (2012) characterize inferencing, among 12 general strategies for listening comprehension and development, with an emphasis on integrating diverse sorts of background knowledge with communicative context or information from a text to guess the meanings of new words or fill in information gaps. They also identify inferencing tactics as abilities to use a variety of resources, such as prior knowledge, visual cues, and the speaker's tone, to compensate for missing or confusing information in a listening text. These two scholars again embrace the significance of inferencing when listed in the six core skills for effective listening comprehension and recommend teachers to take these skills into account when planning listening lessons (Vandergrift & Goh, 2012).

Correspondingly, Kim (2016) uses the term inference skills to refer to children's ability to integrate text information with their background knowledge for the sake of proficient listening comprehension. On the other hand, seemingly neglecting the role of textual information in the inference-making procedure, Newton et al. (2018) consider inferencing as the strategy to utilize prior knowledge in order to fill in listening gaps,

which is commonly used by both competent and less competent L2 listeners. Similarly, in *The Learning Strategies Handbook*, inference-making involving making guesses based on previous knowledge is defined by Chamot et al. (1999) as a problem-solving strategy among metacognitive skills. Despite being used frequently, the inferencing process is challenging since it demands listeners to take opportunities, make guesses, draw conclusions and create judgements to effectively interpret listening information at a deeper level (Aaronson, 1979).

Besides, being known as an integral strategy for developing receptive skills, the role of inference-making towards reading comprehension has been widely recognized in EFL research. It is defined as the skills of retrieving and generating information while reading to clarify implied information in a text (Elbro & BuchIversen, 2013; Kendeou et al., 2016). In other words, inferencing processes require learners to combine prior knowledge or experience with textual cues to arrive at a conclusion that goes beyond what is explicitly stated in a text. Similarly, Seifert et al. (1985) consider inferences as a bridge between formerly formed knowledge and information presented in a text. However, when explicit information is lacking from a text, students will rely on their schemata as the source of their inferences (Bahri & Al Hussain, 1997).

In a nutshell, inferencing skills require learners to integrate their prior knowledge and contextual information to make guesses so as to sufficiently interpret a text. In this present study, the term *inferencing skills* are used to refer to the ability to make inferences based on textual clues and one's personal prior knowledge in order to clarify ambiguous or confusing information in a listening text, to draw conclusions which are not explicitly stated in the text, to recognize the coherent connections of different parts in the listening speech, to guess the meaning of new words, to fill in missing information and to predict the content of the text.

2.3 Inferencing skills and listening comprehension

It has been long believed that listening comprehension is all about the bottom-up processing of sound streams. However, since listening is a covert process and learners need to decipher the data that are not visible, particularly in the EFL context, which could prevent them from catching up with the spoken speed. Learners, as such, often experience comprehension breaks down until they could find out how to use compensatory strategies, contextual clues and other relevant information to infer what they have missed or did not understand (Newton et al., 2018). Compensatory strategies including inferential skills are, therefore, a key component for efficient listening comprehension. As aforementioned, the listening comprehension process is similar to reading comprehension, and the previously reviewed literature shows the decisive role of inferencing skills in reading comprehension. Thus, it is expected that inference-making contributes to listening comprehension as well (Florit, Roch, & Levorato, 2011).

A number of studies have been conducted concerning this issue, and the results indicate that inferences are crucial for listening comprehension (Freed & Cain, 2017). A listener could make inferences to broaden information within a text, and connect context

cues with his prior world knowledge as he constructs the mental model of the listening text's meaning (Garnham, 2010; Cain & Oakhill, 1999). Kim (2016) in her study of direct and mediate effects of language and cognitive skills on listening comprehension for children asserted that inference ability is a direct factor to predict students' listening comprehension, which suggests that inferencing skills have a significant role in this receptive process. In a different study, Zhang (2012) reported that inferencing was one of the influential strategies that improved listening capacity. The result of this research is aligned with the aforementioned literature, which shows that frequent use of strategies leads to the learners' gains in their listening task performance. Besides, she identified the important listening strategies to enhance listening capacity namely self-monitoring, elaboration and inferencing.

As discussed, inferencing skills are highly potential to facilitate receptive processes including reading and listening comprehension. However, while the relationship between inference-making and reading has been widely examined, there is only a scarce amount of research that has focused on the role of inferential strategy in listening comprehension. Moreover, since listening is always considered the most difficult skill in EFL learning and teaching because of its covert nature, compensatory strategies like inferencing may significantly contribute to this comprehension process. Therefore, it is imperative to gain further insights into the relationship between inferencing skills and listening comprehension.

2.4 Techniques for teaching listening inferencing skills

The goal of teaching listening comprehension is to provide chances for students to acquire particular skills which help them listen better (Richards, 1983). In teaching listening, there are two elements that teachers can manipulate, both of which serve to enhance learners' ability to use specific strategies. First, teachers can adjust the input, that is, the language to which the learners are exposed, by controlling features such as topic, grammatical complexity, and rate of delivery. Second, teachers can manipulate the kinds of tasks they set for students. Manipulation of either or both are directed toward developing certain skills. In other words, listening strategies or skills including inferencing are not only teachable but also the focus of the teaching process. As seen in Figure 1, Richard's model provides a simple yet fundamental direction for the teaching of listening skills to learners.

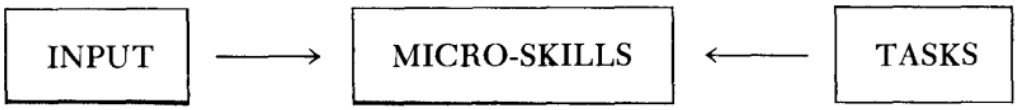

Figure 1: Input, tasks and micro-skills (Richards, 1983)

On this basis, Chamot (1998) further suggested that to effectively teach learning strategies, teachers should build new techniques on already experienced strategies and knowledge. As presented in Figure 2, the first thing teachers should do is to activate prior knowledge, then model how to use the strategy, name it, and explain why, how and when it can be used. After that, teachers provide practice with guidance, evaluation discussion and finally independent practice. While students are practising, teachers should suggest or remind them of the strategy, and the purpose for using it so as to let them identify the correct strategy they need. The use of this strategy then needs to be evaluated by both the teacher and the learners on their own. It is said that learning log, discussion and sharing ideas of strategy use are good assessment measures for learning strategies, which also facilitate strategy learning. After all, manipulating listening input and tasks as well as following a systematic approach of strategy instruction is decisive to teach learning strategies in general and inferencing skills in particular.

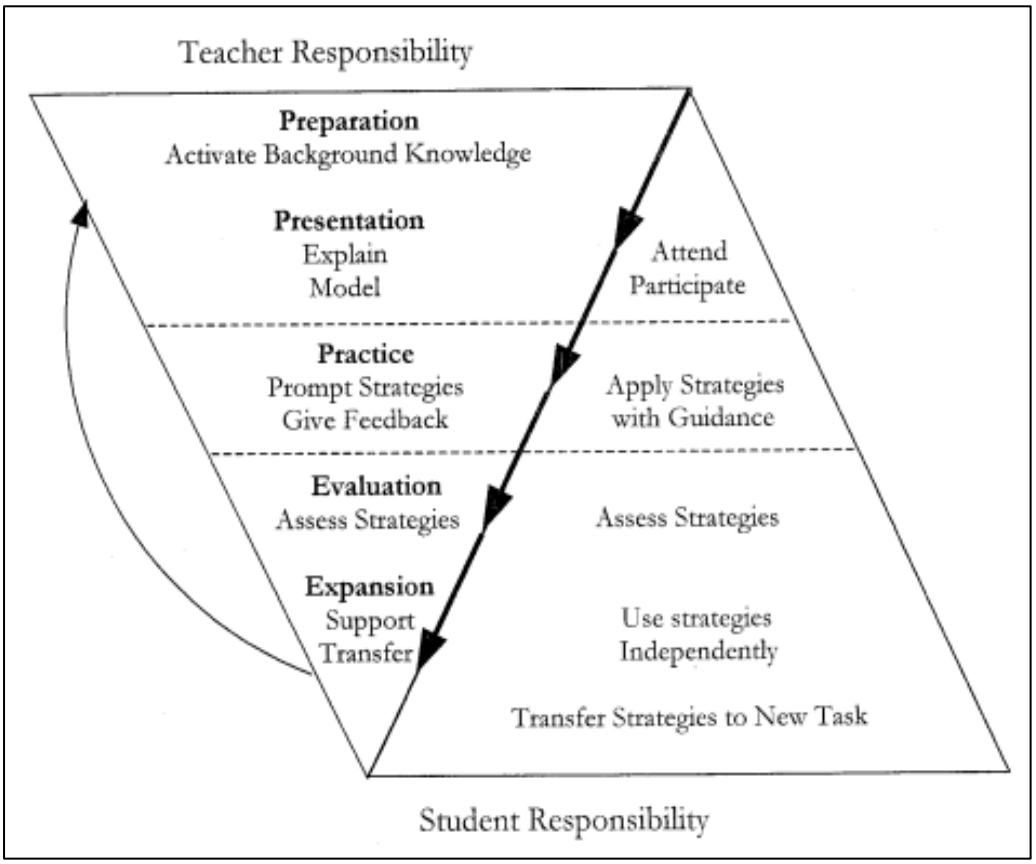

Figure 2: Framework for strategies instruction (Chamot, 1998)

Given the well-established role those inferencing skills play in listening comprehension, the question of how these skills can be effectively developed through instruction has become one of the central focuses of listening skill pedagogy. Inference-making is demanding because learners need to be capable to accomplish numerous tasks in a short time in order to draw good inferences. In both listening and reading

comprehension, learners have to recognize word clusters, figure out text structure, link different ideas in the text and connect textual clues with their prior knowledge in the inferential process (Kendeou et al., 2014; Melby-Lerva˚g & Lerva˚g, 2014; Snow, 2002). Due to its complicated nature, inferences during comprehension often need explicit help and do not occur naturally (Brown, 1977; McKoon & Ratcliff, 1992; Oakhill & Cain, 2007; Trabasso & Bouchard, 2002). Therefore, appropriate pedagogical support from teachers is needed to facilitate students' use of inferencing skills. In this section, potential teaching techniques to teach listening inferential skills will be informatively discussed by reviewing the literature related to strategy teaching and inference-making skills.

In order to systematically present the pedagogical techniques, in the current study, an instructional structure to teach listening inferencing skills has been adapted from the framework for strategies instruction by Chamot (1998) as presented in Figure 2.3 above and a lesson structure in TBMIL suggested by (Goh et al., 2018). The adapted model is presented in Figure 3 below.

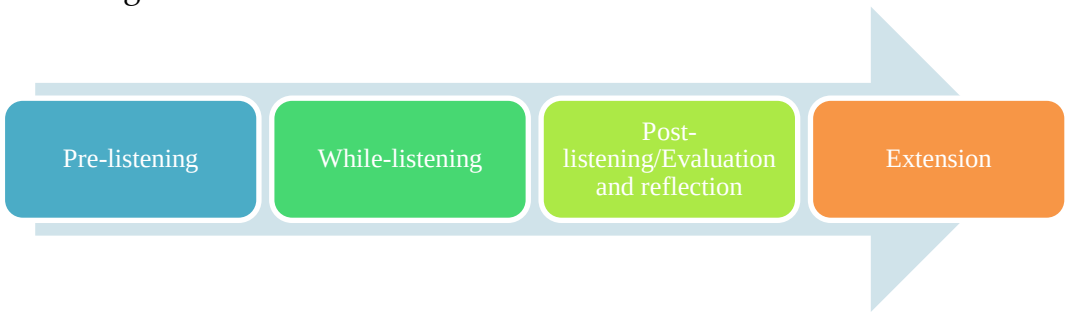

Figure 3: The adapted model for teaching inferencing skills

As depicted, there are four stages in this instructional method, which are pre-listening, while-listening, post-listening (or evaluation and reflection), and extension tasks. In terms of function, the goal of the pre-listening phase is to prepare learners for the practice stage by means of activating relevant background knowledge, teaching necessary language, and explaining and modeling using inferencing skills. The while-listening stage is the time for practising inferential skills under teacher guidance to efficiently interpret the listening text. In the next stage, post-listening, learners need to use the information they have obtained through listening for communicative purposes, which aims to make their learning more meaningful. In regards to facilitating inferencing skills, this is often the moment for strategy use discussion. This is also the stage of strategy-using evaluation and reflection so the discussion should include assessing the strengths and weaknesses of learners' strategy implementation during listening and preparing them for similar tasks in the future. The last but not least, extension activities are designed to provide students with more chances to extensively practice using and monitoring inferencing skills. The followings are potential pedagogical techniques that teachers could make use of to teach listening-inferencing skills at each stage.

Table 1: Teachers' reported techniques in teaching listening inferencing skills

Clusters	Content	Relevant literature
In the pre-listening stage	Activating students' relevant prior knowledge	Shepard-Carey, (2021); Kendeou, (2015); Cain et al., (2001) Oakhill, & Cain K (2007); Yuill, & Oakhill (1991);
	Setting suitable goals for the listening process	Cain, & Oakhill, (1999).
	Making plans for inference-making	Dunlosky et al., (2002); Schraw, (1994).
	Pre-teaching vocabulary	Shepard-Carey, (2021);
	Improving students' ability to recognize sounds	Field, (2008)
	Modelling using listening inferencing skills	Chamot, (1998).
In the while-listening stage	Teaching inferencing skills in the context	Cross, J. (2009); Graham, & Macaro (2008).
	Using different types of listening tasks	Olson, & Duffy (1985); Cain, & Oakhill, (1999); Siegel, (2018); Newton et al., (2018).
	Utilizing authentic listening tasks	Newton et al., (2018).
	Using authentic listening materials	Newton et al., (2018); Gilakjani, & Ahmadi, (2011).
	Using narrative listening texts	Lepola, et al., (2012); Kendeou et al., (2008); Aaronson, (1979).
	Familiarizing students with many types of listening texts	Newton et al., (2018).
	Employing the think-aloud technique	Pressley, & Afflerbach (2012).
	Encouraging students to create imaginary conversations with the story author	Aaronson, (1979).
	Motivating students to use gestures while expressing their inferences.	Nathan, & Martinez, (2015).
	Letting students listen to each listening text several times and reflect upon their inferencing skills after each time	Newton et al., (2018); Cain, & Oakhill, (1999)
	Providing an adequate amount of inferable textual clues and useful illustrations	Bahri, & Al Hussain, (1997); Gilakjani, & Ahmadi, (2011); Nathan, & Martinez, (2015).
In the post-listening stage	Conducting discussions related to inference evaluation and applying inferencing skills for similar tasks	Newton et al., (2018); Chamot, & El-Dinary, (1999).
	Providing students with metacognitive prompts guiding the discussions	Newton et al., (2018).
	Giving feedback on students' inferences	Cain, & Oakhill, (1999);
In the extension stage	Assigning extensive listening tasks	Zeng, & Goh, (2018).
	Providing students with metacognitive prompts to assist their self-practice	Zeng, & Goh, (2018); Newton et al., (2018).

To summarize, this section of the literature review indicates that inference-making is remarkably challenging since it requires learners to accomplish numerous tasks during the listening process. Thus, learners will be needy of teachers' pedagogical support. Therefore, a wide range of instructional techniques has been discussed in terms of their benefits for teaching listening-inferencing skills.

3. The study

3.1 Research questions

This study aims to investigate EFL teachers' perceptions of listening inferencing skills, and the self-reported techniques in teaching these skills. In line with these aims, the research is conducted to answer three following questions:

1) What are teachers' perceptions of listening-inferencing skills?
2) What pedagogical techniques do teachers report to have employed in teaching listening-inferencing skills?

3.2 Methodology

This descriptive study employed a quantitative approach in which a questionnaire was used for data collection. Since questionnaires are a comparatively time and cost-effective instrument to attain quantitative data from numerous participants (Creswell, 2014; Wilkinson & Birmingham, 2003), it provides the researcher with the opportunity to gain access to a large number of participants in a feasible period of time. In this study, a questionnaire was designed including five-point Likert scale items and an open-ended question to address the two research questions concerning teachers' perceptions of LIS, and their reported pedagogical techniques in teaching these skills.

The questionnaire including 49 items was built up based on valuable pieces of information concerning teaching and learning inference-making highlighted in the Literature review. The items are divided into three sections including the first section of personal information. Section 2 focuses on ***teachers' perceptions of LIS*** which consists of 20 items distributed into three clusters namely teachers' awareness of IS, teachers' understanding of IS and teachers' perceptions of the importance of IS to listening comprehension. The respondents were required to give their opinions on the statements by choosing the most appropriate level in the five-point Likert scale of agreement ranging from 1-strongly disagree, 2-disagree, 3-neutral, 4-agree to 5-strongly agree. Section 3 concerning ***teachers' reported pedagogical techniques to teach LIS*** includes 28 five-point Likert scale items and one open-ended question. The suggested instructional techniques are organized into 4 clusters in accordance with the four stages namely *pre-listening, while-listening, post-listening* and *extension stage* of the instructional method to teach LIS (Figure 3). In this section, the five-point Likert scale of frequency has been employed to obtain quantitative data, which has five levels namely 1-never, 2-almost never, 3-sometimes, 4-usually and 5-frequently.

Table 2: The organization of the questionnaire instrument

Section	Cluster	Items
Section 1: Personal information		
Section 2: Teachers' perceptions of LIS	Teachers' awareness of IS	1, 2, 3, 4, 5
	Teachers' general understanding of IS	6, 7, 8, 9, 10, 11, 12, 13
	Teachers' perceptions of the importance of IS to listening comprehension	14, 15, 16, 17, 18, 19, 20
Section 3: Teachers' reported techniques in teaching LIS	In pre-listening stage	21, 22, 23, 24, 25, 26
	In while-listening stage	27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
	In post-listening stage	44, 45, 46
	In extension stage	47, 48
	An open-ended question	49

3.3 Participants

In total, 72 EFL teachers who are teaching listening skills at different universities, colleges and English language centres in the Mekong Delta, Viet Nam gave responses to the research questionnaires. Since the focus of the study was on the teaching of LIS, the requisite condition for participants is that the teachers need to be teaching listening skills. As such, teachers who satisfy this condition and are willing to participate in the study were invited to respond to the questionnaire. The demographic information of the participants is presented in Table 3.

Table 3: Demographic information of participants for the questionnaire (N=72)

Variables	Categories	N	Percentage
Gender	Male	21	29.2%
	Female	51	70.8%
Years of teaching English	Under 5 years	32	44.4%
	5-9 years	21	29.2%
	10-20 years	17	23.6%
	Over 20 years	2	2.8%
Workplace	A university/college	24	33.3%
	A language centre	48	66.7%

3.4 Data collection and analysis

The questionnaire was sent to an experienced English teacher who has more than 20 years of teaching and doing research in English language teaching, particularly in the field of teaching listening and speaking skills to see whether it was valid to achieve the research aims. After being revised, the questionnaire was piloted again by having 20 EFL teachers give their responses to it. These teachers had similar characteristics to the study

participants. After coding two reversed items (items 1 and 2), the pilot data was analyzed using SPSS 20 and a Scale test was run. The Cronbach Alpha's Coefficient (α) is 0.842 which indicated that the questionnaire is reliable enough to collect the research data (α >= 0.70).

In terms of data analysis, the software SPSS 20 was utilized. First of all, the Scale test was run again with the data collected from 72 official participants, and the Cronbach Alpha's Coefficient (α) was 0.904, which repeatedly proves that the questionnaire is a highly reliable instrument. Next, descriptive tests were calculated to identify Min, Max, Mean, and SD values of each cluster and sub-cluster. Oxford's weighted mean level of agreement for Likert scale (Oxford, 1990) was used as a framework for data analysis.

Table 4: Oxford's weighted mean level of agreement for Likert scale

Weighted Mean	**Level of agreement**
More than 4.2 – 5	Very high
More than 3.4 – 4.2	High
More than 2.6 – 3.4	Average
More than 1.8 – 2.6	Low
1.8 and less	Very weak

For some of the means which are close to a critical value in the Oxford scale (1990), One sample T-tests were calculated to identify the actual levels of these means. Additionally, in order to deeply investigate the data collected in each cluster, One sample T-tests were again used to compare individual item means with the overall cluster mean. Last but not least, while Paired sample T-tests were run to figure out the differences between the means of teachers' perceptions of LIS, the teachers' reported pedagogical techniques in teaching LIS and their reported challenges in teaching LIS, Independent sample T-tests and One-way Anova tests were utilized so as to see whether genders, workplaces and teaching lengths could make teachers' perceptions and reported practices in teaching LIS varied.

4. Findings

4.1 Teachers' understanding of LIS and its importance

a. Teachers' general perceptions of LIS

One of the research aims is to investigate teachers' perceptions of LIS. First of all, A descriptive test was run to identify the overall mean of teachers' perceptions of LIS section. As can be seen in Table 5, the test result showed that teachers' perceptions towards LIS were quite high (M = 3.99; SD = 0.348).

Table 5: Descriptive test: Teachers' perceptions of LIS

	N	**Min**	**Max**	**Mean**	**Std. Deviation**
Teachers' perceptions of LIS	72	3.10	4.60	3.99	.348

A One-sample T-test was run to check whether there was a difference between the mean score of 3.99 and the test value of 4.3 which indicates a very high level of agreement according to Oxford (1990). The test result presented revealed that there was a statistical difference (t = -7.60; p = 0.000) between the mean score and the test value, which indicated that teachers' perceptions about LIS were just relatively high but not very high.

In order to analyze deeply teachers' perceptions of LIS, descriptive tests were run to identify Min, Max, Mean and SD values of the clusters namely teachers' awareness of IS, teachers' general understanding of IS, and teachers' perceptions of the importance of LIS. The test results revealed that teachers' awareness, general understanding of LIS and perceptions of the importance of LIS were all relatively high with M =3.71; 4.07; 4.09 respectively. In detail, teachers' perception of the significance of LIS was the highest (M = 4.09), followed by teachers' general understanding of LIS (M = 4.07), and finally, teachers' awareness of LIS was the slowest among the clusters.

Table 6: Descriptive test: Teachers' awareness of LIS, teachers' general understanding of LIS and teachers' perceptions of the importance of LIS

	N	Min	Max	Mean	Std. Deviation
Teachers' awareness of LIS	72	2.40	5.00	3.71	.690
Teachers' general understanding of LIS	72	3.00	5.00	4.07	.350
Teachers' perceptions of the importance of LIS	72	3.00	5.00	4.09	.397

Besides, another One sample T-test was calculated to see whether there was a statistical difference between the overall mean of teacher perceptions of LIS and the mean score of each cluster. The results in Table 7 showed that while there was no noticeable dissimilarity between teachers' general understanding of LIS and teachers' overall perceptions of LIS (t=1.89; p=0.63), teachers' awareness of LIS and teachers' perceptions of the importance of LIS was remarkably statistically distinct from the overall perceptions of the skills (t=-3,39; p=0.001; t=2.21; p=0.031 respectively). That is to say, in the beginning, when being asked about LIS, the teachers showed that their awareness or impression of LIS was not so high, in fact, it was lower than their overall perceptions of LIS (Mean Difference = -0.276). Nevertheless, their general knowledge of LIS was as high as their overall perceptions, and their perceptions of the importance of the skills were slightly higher than their overall perceptions and the other clusters (Mean Difference = 0.103). The reasons underlying this phenomenon could be that LIS is one among tens of sub-listening skills, and teachers may have utilized or taught the skills so as to complete listening tasks or achieve listening comprehension goals but they hardly studied the skills' exact names or mistook them with similar tactics such as "guessing'' or "predicting". Once they knew what LIS actually referred to, they presented a remarkable understanding of LIS and reached a significant agreement on the importance of these skills to listening comprehension.

Table 7: One sample T-test - Comparing teachers' awareness of LIS, teachers' general understanding of LIS and teachers' perceptions of the importance of LIS with overall teachers' perceptions of LIS

	Test Value = 3.99					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Teachers' awareness of LIS	-3.39	71	**.001**	-.276	-.438	-.114
Teachers' general understanding of LIS	1.89	71	**.063**	.078	-.004	.160
Teachers' perceptions of the importance of LIS	2.21	71	**.031**	.103	.010	.197

On the basis of these general findings, the following sub-sections go into detail about each of the three aspects of the teachers' perceptions of LIS including teachers' awareness of LIS, their general understanding of LIS and their perceptions of its importance.

b. Teachers' awareness of LIS

As earlier mentioned, the first five items of the questionnaire were designed to examine the teachers' general awareness of LIS. Among the statements, items 1 and 2 were negatively phrased, which respectively are "*I have never heard about LIS*" and "*I have heard about LIS but do not understand about it clearly*". Therefore, the scores for these two items were recoded so as to ensure a consistent and accurate interpretation of the data. In addition, in order to consistently analyze the items in alignment with the weighted mean level of agreement (Oxford, 1990), the reserved meanings of items 1 and 2 would be used namely "*I have heard about LIS*" and "*I have heard about LIS and understand it clearly*". A descriptive test was run to identify Min, Max, Mean and SD of each item, and the result was presented in Table 8.

It can be seen from the test result in Table 8 that the teachers' agreement on most of the items concerning teachers' awareness of LIS was at a high level according to Oxford's scale (1990) except for teachers' clear understanding of LIS and what the skills involved. In detail, having heard about LIS was rated the highest (M=4.19), followed by the teachers' claim that they teach their students to use LIS (M=3.93). It was also found that a relatively high number of teachers reported having applied LIS well in their own listening with M=3.65. In contrast, understanding about LIS and what these skills clearly include were rated the slowest, only at the average level, respectively at 3.39 and 3.40.

Table 8: Descriptive test: individual items concerning teachers' awareness of LIS

	N	Min	Max	Mean	Std. Deviation
I have heard about LIS.	72	1	5	4.19	.898
I have heard about LIS and understand it clearly.	72	1	5	3.39	1.16
I know clearly about LIS and what these skills involve.	72	2	5	3.40	1.04
I can apply LIS in my own listening well.	72	1	5	3.65	.906
I teach my students to use LIS.	72	2	5	3.93	.699
Teachers' awareness of LIS	**72**	**2.40**	**5**	**3.71**	**.690**

c. Teachers' understanding of LIS

This section reports findings in relation to the second cluster in the questionnaire with 08 questions items (questions 6-13) that were designed to gain insights into teachers' understanding of what listening inference skills are. For data analysis, a descriptive test was calculated to determine Min, Max, Mean and SD of each item in the cluster. The results displayed in Table 9 below showed that the items were scored at the high or very high level according to Oxford's scale (1990) which signals that the teachers had a remarkably high understanding of LIS. In particular, the teacher participants appeared to hold a high level of understanding of LIS as involving "*integrating textual clues and one's prior knowledge to make guesses*" (M=4.24), followed by the perception that LIS *"include guessing meaning of new words*" (M=4.22). In addition, most of the teachers also agreed that these skills involve "*inferring the coherent connections of different parts in the listening speech*" (M=4.12) and "*predicting content of a listening text*" (M=4.12). In contrast, a relatively low level of awareness was found in relation to the idea that LIS refer to the ability to "*figure out and fill in missing information in a listening text*" (M=3.86).

Table 9: Descriptive test: Individual items concerning teachers' general understanding of LIS

	N	Min	Max	Mean	Std. Deviation
LIS involve integrating textual clues and one's prior knowledge to make guesses.	72	2	5	**4.24**	.517
LIS include guessing to clarify confusing information in a listening text.	72	2	5	**3.93**	.657
LIS involve making guesses to interpret the information that students cannot hear clearly or catch up with.	72	2	5	**3.96**	.659
LIS include drawing conclusions or implications which are not explicitly stated in the text.	72	2	5	**4.08**	.687
LIS involve inferring the coherent connections of different parts in the listening speech.	72	3	5	**4.12**	.604

LIS include guessing meaning of new words.	72	2	5	**4.22**	.562
LIS concern figuring out and filling in missing information in a listening text.	72	2	5	**3.86**	.718
LIS include predicting content of a listening text.	72	2	5	**4.12**	.555
Teachers' general understanding of LIS	**72**	**3.00**	**5.00**	**4.07**	**.350**

It can be seen that the test result indicated that the teachers' understanding of LIS was at a noticeably high level. They most significantly agreed that LIS concern making guesses, especially guessing the meaning of new vocabulary, and the skills involve integrating textual clues and prior knowledge. Besides, a majority of them perceived that LIS involve inferring the coherent connections of different parts in the listening speech and predicting the content of a listening text. In addition, other concepts of LIS such as drawing implications not explicitly stated in a listening text, making guesses to interpret the information that students cannot hear clearly or catch up with, and guessing to clarify confusing information were approved by them at a fairly high level. However, they thought that figuring out and filling in missing information in a listening text were the least related to LIS.

d. Teachers' perceptions of the importance of LIS

This section focuses on findings from the third cluster in the questionnaire that investigated the teachers' perceptions of IS in listening comprehension. Data for this section were collected from questions items 14 to 20 in the questionnaire. For data analysis, a descriptive test was run to calculate Min, Max, Mean and SD of each item, and the result was presented in Table 10. As can be seen, the mean scores of the individual items were at a high or very high level, which suggested that the teachers were noticeably aware of the significance of these skills to listening comprehension. In detail, they had the highest agreement on the first role of LIS which is its necessity for understanding the coherent relation between parts of a listening text (M=4.28), and this is also the only statement in the cluster rated at a very high level. Allowing students to get the gist of a listening text without knowing every single word was the second highest-rated function of LIS (M=4.18). In contrast, helping students find out the meaning of new words without a dictionary look-up and reducing students' memory load during the listening process were the lowest-rated items among the roles of IS to listening comprehension (M=3.96; M=3.97). In addition, the teachers' perceptions of the other functions of LIS namely helping students understand the parts that they have not heard clearly or have not caught up with, being essential for the deep interpretation of a listening text, and inferring the meaning of new words leads to better retention in comparison with rote learning were also fairly high (M=4.10; M=4.06; M=4.11).

Table 10: Descriptive test: individual items concerning teachers' perceptions of the importance of LIS

	N	Min	Max	Mean	Std. Deviation
Inference-making is necessary for understanding the coherent relation between parts of a listening text.	72	3	5	4.28	.510
IS allow students to get the gist of a listening text without knowing every single word.	72	2	5	4.18	.718
IS could help students understand the parts that they have not heard clearly or have not caught up with.	72	2	5	4.10	.632
IS help students find out the meaning of new words without a dictionary look-up.	72	2	5	3.96	.592
Inferring meaning of new words leads to better retention in comparison with rote learning.	72	2	5	4.11	.683
IS help reduce students' memory load during the listening process.	72	1	5	3.97	.822
IS are essential for deep interpretation of a listening text.	72	2	5	4.06	.767
Teachers' perceptions of the importance of LIS	**72**	**3.00**	**5.00**	**4.09**	**.397**

4.2 Teachers' reported techniques in teaching LIS

Exploring the teachers' reported techniques in teaching LIS to their students was the second primary focus of the present study. In the questionnaire, 28 question items were designed focusing on the techniques that teachers might have employed in pre-, while-, post-listening as well as the extension stage. Specific questions included in each of these clusters are listed in Table 11 below.

Table 11: Clusters concerning teachers' reported techniques in teaching LIS

Cluster	Items
Pre-listening techniques	21, 22, 23, 24, 25, 26
While-listening techniques	27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
Post-listening techniques	44, 45, 46
Extension stage techniques	47, 48

For data analysis, a descriptive test was run to find out Min, Max, Mean and SD of the frequency use of pedagogical techniques in teaching LIS, and the test result (M = 3.60; SD = 0.536) was shown in Table 12. In addition, a one-sample T-test was calculated to check whether there was a difference between the mean score of 3.60 and the test value of 3.4 which indicates the average level of frequency use according to Oxford (1990). The test results in table 4.5 revealed that the difference between the two values was statistically significant (p=0.002; t=3.16), which meant teachers' frequency of use of pedagogical techniques to teach LIS was at a fairly high level.

Table 12: Descriptive test - Teachers' reported techniques in teaching LIS

	N	Minimum	Maximum	Mean	Std. Deviation
Teachers' reported techniques	72	2.36	4.54	3.60	.536

Another descriptive test was also run to identify to Min, Max, Mean and SD of each cluster of the pedagogical techniques. The test result presented in Table 13 indicated that the frequency levels by which the teachers utilized the instructional techniques varied. First of all, pre-listening pedagogical techniques were used the most frequently by the teachers (M=3.91). Besides, while-listening pedagogical techniques were the second most usually used (M=3.58) whereas post-listening and extension instructional tactics were employed the least often (M=3.37, M=3.16 respectively).

Table 13: Descriptive test-clusters of teachers' reported techniques in teaching LIS

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-listening techniques	72	2.67	5.00	**3.91**	.541
While-listening techniques	72	2.29	4.65	**3.58**	.529
Post-listening techniques	72	1.00	5.00	**3.37**	.814
Extension stage techniques	72	1.00	5.00	**3.16**	.952
Teachers' reported techniques	72	2.36	4.54	**3.60**	.536

Another one sample T-test was calculated to check whether there were any noticeable differences between the cluster means and the overall mean of teachers who reported pedagogical techniques in teaching LIS. The test result in Table 14 revealed that there was no statistical distinction between the while-listening pedagogical techniques' mean and the overall mean of 3.60 (t=-0.280; p=0.780). However, the degrees of using pre-listening, post-listening and extension-stage tactics were statistically different from that of all techniques (t=4.86; p=0.000; t=-2.40; p=0.019; t=-3.92; p=0.000 respectively). This indicated that some instructional techniques were implemented in teaching LIS more than others. Firstly, the pre-listening tactics were predominantly employed by the teachers at a remarkably high level, more than the average use of all techniques (Mean difference = 0.310) and the techniques in other stages. Whereas the teachers utilized while-listening tactics as fairly frequently as all techniques' average use, post-listening and extension tactics were used only at a medium degree which was significantly less than the average (Mean difference = -0.230; Mean difference = -0.440 respectively), and other groups of techniques.

Table 14: One sample T-test - Comparing the means of the clusters with the overall mean of teachers' reported techniques in teaching LIS

	Test Value = 3.60					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pre-listening techniques	4.86	71	**.000**	.310	.183	.437
While-listening techniques	-.280	71	**.780**	-.017	-.142	.107

Post-listening techniques	-2.40	71	**.019**	-.230	-.421	-.038
Extension stage techniques	-3.92	71	**.000**	-.440	-.664	-.217

In brief, regarding teaching LIS, the teachers mainly focused on pre-listening instruction while relatively frequently employing while-listening tactics, and they only averagely utilized post and extension-stage pedagogical techniques. Since the listening process requires intense concentration and is also covert, it is quite tough and impractical for teachers to provide any support or interfere with this process. That could be the reason why teachers had a tendency to pay more attention to the pre-listening stage than the while-listening with the hope to prepare their students well prior to this challenging and dependent journey. Moreover, proper instruction before listening could also boost students' confidence, thus, potentially enhancing their performance. In addition, teachers do not usually use post-listening techniques, which could be because of classroom time constraints. Furthermore, limited learning autonomy, demanding listening homework design, and the questionable efficiency of extension tasks may make teachers less favorable to employing extensive listening exercises.

In the next sub-sections, the techniques that the teachers reported to have employed in teaching LIS to their skills will be presented in detail. In terms of structure, findings in relation to each of the clusters will be presented in the order of pre-listening, while-listening, post-listening and extension stage.

a. Pre-listening pedagogical techniques

As aforementioned, the pre-listening cluster included six individual techniques that teachers may utilize in teaching LIS. A descriptive test was run to see the average levels of frequency with which the teachers employed these tactics. The test results in Table 14 indicated that each of the techniques was used highly commonly. However, there were still slight differences regarding how often the teachers made use of them. While the degrees of using pre-teaching the vocabulary beneficial for inference-making and activating students' relevant knowledge were the first and second highest respectively (M=4.24; M=4.13), those of guiding students to plan for their listening inferences and modeling how to use LIS were the lowest (M=3.65; M=3.67). Besides, the teachers helped their students set appropriate goals for the listening process and trained them to recognize English sounds prior to the listening stage at a relatively high-frequency level (M=3.94; M=3.83).

Table 14: Descriptive test: pre-listening pedagogical techniques to teach LIS

	N	Min	Max	Mean	Std. Deviation
I activate students' relevant prior knowledge.	72	2	5	**4.13**	.691
I help students to set suitable goals for their listening process.	72	2	5	**3.94**	.710
I guide students to plan for their listening inferences in terms of when, why and how to infer.	72	2	5	**3.65**	.922
I pre-teach the vocabulary necessary to draw useful inferences.	72	3	5	**4.24**	.702
I train students to recognize English sounds	72	2	5	**3.83**	.787
I model using LIS.	72	2	5	**3.67**	.839
Pre-listening techniques	72	2.67	5.00	**3.91**	.541

b. While-listening techniques

Concerning the pedagogical techniques that teachers might employ in the while-listening stage, there are three sub-clusters with a total number of 17 techniques. As presented in Table 15, these techniques belong to three groups of listening tasks, listening materials, and other techniques. Findings in relation to each of these clusters will be presented in this section.

Table 15: Sub-clusters regarding while-listening techniques in teaching LIS

Sub-cluster	Items
Listening tasks	28, 29, 30, 31, 32, 33, 34
Listening materials	35, 36, 37, 42
Other techniques	27, 38, 39, 40, 41, 43

For analysis, a descriptive test was run to identify the Min, Max, Mean and SD of each while-listening sub-cluster and the results were shown in Table 16. It could be seen that although in general the whole group while-listening techniques were employed at a relatively high degree (M=3.58), the sub-clusters of techniques were used at noticeably diverse frequency levels. First, the teachers favored the tactics related to using different listening tasks the most (M=3.80). Additionally, the techniques concerning exploiting various listening materials were utilized at the second highest degree (M=3.59). However, other tactics were employed at the least frequency level (M=3.32) compared with other sub-clusters.

Table 16: Descriptive test - Sub-clusters regarding while-listening techniques in teaching LIS

	N	Minimum	Maximum	Mean	Std. Deviation
Listening tasks	72	2.43	5.00	**3.80**	.565
Listening materials	72	2.25	5.00	**3.59**	.559
Other techniques	72	1.50	4.83	**3.32**	.686
While-listening techniques	72	2.29	4.65	**3.58**	.529

c. Techniques related to using listening tasks

In order to gain insights into the degrees to which the teachers have used individual tactics concerning exploiting various listening tasks, a descriptive test was run to identify Min, Max, Mean, SD of each technique in this sub-cluster. The test results presented in Table 17 showed that most of the tactics were employed rather frequently except for the item asking students to listen and evaluate the merits of a listening text which was only used moderately (M=3.19). First of all, listening for the gist in combination with listening and answering comprehension questions seems to be the two most frequently-used listening tasks in teaching LIS (M=4.18; M=4.06 respectively). In addition, among a variety of types of questions, "why" and "how" items were utilized noticeably often to encourage inference-making (M=4.13). Besides, making predictions about the listening content and listening, taking notes and clarifying were the next often-employed listening tasks in teaching LIS (M=3.90; M=3.51). Finally, the teachers seem to be noticeably aware of the importance of authentic tasks which were similar to listening activities in real life so they use these quite often in their LIS teaching (M=3.63).

Table 17: Descriptive test: Pedagogical techniques related to using listening tasks

	N	Min	Max	Mean	Std. Deviation
I ask students to listen and answer comprehension questions.	72	2	5	**4.06**	.669
I ask "why" or "how" questions to stimulate inference-making.	72	2	5	**4.13**	.730
I ask students to listen for the gist.	72	2	5	**4.18**	.757
I get students to make predictions about the listening content (e.g., the beginning or ending of a story).	72	1	5	**3.90**	.937
I ask students to listen and evaluate the merits of a listening text.	72	1	5	**3.19**	.929
I ask students to listen, take notes and clarify.	72	1	5	**3.51**	1.075
I utilize authentic tasks similar to listening activities in real life.	72	2	5	**3.63**	.830
Listening tasks	**72**	**2.43**	**5.00**	**3.80**	**.565**

Evidence from the table indicates that the popular listening tasks namely listening for the gist and listening and answering comprehension questions were the most preferred by the teachers in teaching LIS. The reason for this could be that these tasks are really common and almost used in every listening lesson so the teachers took advantage of using these to teach listening comprehension in general and LIS in particular. Besides, "why" and "how" questions were agreed upon by the majority of the teachers that these could be used to stimulate students' inferences. Another listening task that was also used noticeably frequently by the teachers to teach LIS is making predictions about the listening content. It reflected the fact that for most teachers, IS were the same as predicting, and they mostly teach their students LIS by generating predictions.

Additionally, a large number of the teachers reported that they often utilized authentic listening tasks simulating real-life listening activities, which reflected that one of the teachers' goals in teaching listening comprehension is to prepare their students well for real communication. On the other hand, the teachers seem to not adequately recognize the benefits of the tasks listen and evaluating the merits of a listening text as well as listening, taking notes and clarifying since they only sometimes used them to teach LIS.

d. Techniques concerning listening materials

A descriptive test was run to identify the average degrees with which the teachers employed the individual tactics concerning listening materials. The test results in Table 18 indicated that the frequency of using these techniques varied from average to high levels. While providing an adequate amount of inferable textual clues and familiarizing students with many types of listening texts were utilized the most often (M=3.96; M=3.85), using authentic listening materials and narrative listening texts were used the least frequently (M=3.44, M=3.13).

Table 18: Descriptive test: Pedagogical techniques concerning listening materials

	N	Min	Max	Mean	Std. Deviation
I use authentic listening materials such as YouTube videos, Ted-talks, real conversations, and news.	72	1	5	**3.44**	.854
I utilize narrative listening texts such as stories, films, and plays.	72	1	5	**3.13**	.918
I familiarize students with as many types of listening texts as possible.	72	2	5	**3.85**	.705
I provide an adequate amount of inferable textual clues.	72	2	5	**3.96**	.680
Listening materials	**72**	**2.25**	**5.00**	**3.59**	**.559**

e. Other while-listening techniques

Apart from using listening tasks and materials, there is other instructional techniques potential to teach LIS. A descriptive test was run to identify the average degrees by which the teachers used each of these techniques. The test results presented in Table 19 indicated that these pedagogical tactics were employed at various frequency levels ranging from average to high degrees. First of all, providing students with useful illustrations related to the listening text and embedding teaching IS in the context of a conventional listening task were used the most frequently (M=3.75; M=3.63). Second, the teachers allowed students to listen to a text several times and got them to reflect upon their IS after every time listening (M=3.38), employed the think-aloud technique to gain insights into students' inferential process (M=3.25), and motivated students to use gestures while expressing their inferences (M=3.24) less frequently than the previously mentioned tactics but significantly more often than the technique encouraging students to create imaginary conversations with the story authors (M=2.69).

Table 19: Descriptive test - Other while-listening techniques in teaching LIS

	N	Min	Max	Mean	Std. Deviation
I embed teaching IS in the context of a conventional listening task.	72	1	5	**3.63**	.863
I employ the think-aloud technique to gain insights into students' inferential process.	72	1	5	**3.25**	1.03
I encourage students to create imaginary conversations with the story authors.	72	1	5	**2.69**	1.17
I motivate students to use gestures while expressing their inferences.	72	1	5	**3.24**	1.03
I allow my students to listen to a text several times and get them to reflect upon their IS after every time they listen.	72	1	5	**3.38**	1.09
I provide students with useful illustrations related to the listening text such as graphs, maps, and pictures.	72	2	5	**3.75**	.73
Other techniques	**72**	**1.50**	**4.83**	**3.32**	**.686**

Evident in the analysis results is the signal that the teachers seemed to highly acknowledge the significance of proper illustrations such as graphs, maps and pictures for generating inferences, thus, they usually offered their students these aids. In addition, as aforementioned, since listening teachers did not usually focus on teaching any particular strategies including IS, they often embedded teaching IS in usual listening tasks. Besides, although repeating listening texts is one of the popular techniques in teaching listening comprehension, it is interesting that the teachers did not perceive it as a useful way to LIS.

f. Post-listening pedagogical techniques

In this part, the degrees of using three instructional tactics after listening would be analyzed. A descriptive test was run to identify Min, Max, Mean and SD values of each individual technique in this group, and the test results were shown in Table 20. It could be seen that the degrees that teachers who utilized these tactics varied from moderate to high levels. Among these three techniques, giving feedback on students' inferences was employed the most frequently (M=3.71), which preceded conducting discussions for students to evaluate their inferences made during listening and how to apply IS for similar tasks (M=3.36). Providing students with metacognitive prompts focused on inference-making evaluation to guide discussions was used the least often in the group (M=3.04).

Table 20: Descriptive test - Post-listening pedagogical techniques in teaching LIS

	N	Min	Max	Mean	Std. Deviation
I conduct discussions for students to evaluate their inferences made during listening and how to apply the IS for similar tasks.	72	1	5	**3.36**	1.07
I provide students with metacognitive prompts focused on inference-making evaluation to guide the discussions.	72	1	5	**3.04**	1.14
I give feedback on students' inferences.	72	1	5	**3.71**	.830
Post-listening pedagogical techniques	**72**	**1.00**	**5.00**	**3.37**	**.814**

g. Extension pedagogical techniques

In order to see the degrees to which the teachers used extension pedagogical techniques to provide students with further practice in using LIS, a Descriptive test was run, and the results were presented in Table 21.

Table 21: Descriptive test: Extension pedagogical techniques in teaching LIS

	N	Min	Max	Mean	Std. Deviation
I assign extensive listening tasks which require students to practice making inferences.	72	1	5	**3.25**	1.05
I provide students with metacognitive prompts to assist their self-practice in regard to using IS.	72	1	5	**3.07**	1.05
Extension stage pedagogical techniques	**72**	**1.00**	**5.00**	**3.16**	**.952**

The descriptive test results revealed that all of the extension pedagogical tactics were utilized at average levels. Between the two techniques, the teachers assigned extensive listening tasks requiring students to practice making inferences (M=3.25) more than providing them with metacognitive prompts to assist their self-practice (M=3.07).

5. Discussions

5.1 Teachers' perceptions of LIS

Concerning findings in relation to the first research question – the teachers' perceptions of LIS, the data analysis results generally indicated that the majority of the teachers perceived that they were highly aware of the concept and the skills. Most of them believed that they experienced or heard about LIS. Given this high level of awareness, however, it was found that the teachers appear to hold a vague understanding of what these skills actually mean and what they encompass. In other words, they did not acknowledge what these skills actually include. There was also a tendency for teachers to believe that LIS actually refer to guessing meaning or making predictions based on contexts. None of them, however, depicted a comprehensive picture of all the sub-skills that LIS include. It was also found that quite a large number of the teachers believed that they have either applied LIS in their own listening or taught these skills to their students

in listening instruction. Given the teachers' confidence, it should be noted that, however, since the teachers hold a rather narrow picture of what LIS actually involves, their claim for the application and inclusion of these skills in their listening and instruction might also be restricted only to what they perceive as LIS.

In more detail, the analysis of the teachers' understanding of LIS as informed by the questionnaire revealed that the majority of the teachers associated LIS with (1) integrating textual clues and one's prior knowledge to make guesses; (2) guessing the meaning of new words, (3) inferring the coherent connections of different parts in the listening speech and (4) predicting the content of a listening text. There appears to be a lower level of awareness in relation to LIS as making guesses to interpret the information that students cannot hear clearly or catch up with, drawing conclusions or implications which are not explicitly stated in the text, or figuring out and filling in missing information in a listening text.

To some extent, this lack of a comprehensive picture of LIS among the teachers depicts a reality among the teacher community concerning a deep understanding of listening skills in general and IS in particular. Such a lack of understanding has been long highlighted by listening pedagogy experts (e.g., Brown, 2006) which in turn, calls for the need to better support both in-service and pre-service teachers with respect to their knowledge and skills in listening instructions. Also, the fact that the teachers appeared to know about LIS in a vague manner might also be seen as the impact of their familiarisation with the material or textbook they use in teaching. To a certain degree, some textbooks do include LIS as part of the listening lesson content. Yet, most of these content sections appear to present LIS at a surface level, rather than systematic and principled manner.

It was also found in the study that although most teachers were well aware of the importance of LIS in listening comprehension, it seemed that teaching LIS was not perceived as the ultimate goal of a listening lesson. Rather, it served as one of the steps to achieve the lesson objectives no matter whether they would like to comprehend a listening text effectively or complete a task successfully. This finding seems to echo what Kim (2016) referred to LIS as the ability to integrate text information with one's background knowledge for the sake of proficient listening comprehension. Regarding the significance of LIS to listening comprehension, the quantitative data analysis results implied that the teachers significantly acknowledged the roles of LIS. The most popular advantage of using LIS was helping students to interpret parts of listening texts that they could not hear or understand clearly which is aligned with the role that Newton et al. (2018) attributed to LIS, a compensatory strategy which helps listeners to overcome their breaks down by integrating contextual clues and other relevant information to infer what they have missed or did not understand.

With respect to specific benefits that LIS bring to learners, it was found from the study that inferring the meaning of new words, which leads to better vocabulary retention, was perceived as critical. This is consistent with previous research by Sternberg et al. (1982), who believe that most vocabulary is learned from context by inferring

meaning, and Craik and Lockhard (1972), who claim that in comparison with rote learning, acquiring new words through inferencing involves deeper levels of cognitive processing which in turn leads to better retention. Besides, Oakhill (1982) asserted that inferences are essential to connect explicit information in a text in order to form cohesion between parts of the text, and the qualitative data showed that teachers highly agreed on this role of LIS. Other advantages of LIS that were noticeably acknowledged by the teachers are grasping the listening main ideas without knowing every word, a deep understanding of it, which are also in line with earlier literature. The last but not least, a newly emerged benefit of IS through qualitative interviews was its usefulness for completing listening tests.

In short, although the teachers had knowledge of the skills and their significance for listening comprehension, they did not adequately study theory related to LIS, which leads to a not-so-detailed understanding of the skills and sometimes made the teachers mistake the skills with predictions only. However, how the teachers defined LIS and what roles of the skills they recognized are in line with the earlier literature. In addition, being beneficial for listening test completion is another benefit of LIS pointed out through a semi-structured interview.

5.2 Teachers' reported techniques in teaching LIS

Exploring the teachers' reported techniques for teaching LIS was treated as the central focus of the current study. In relation to this aspect, evidence from the study, first of all, seems to suggest that the teachers employed the techniques at a relatively high level (M=3.60). Also, among the four categories of techniques, pre-listening and while-listening techniques were found to be the group that the teachers reported to have focused on more. Pre-listening techniques, as Newton et al., (2018) explain the step to provide students with a foundation of linguistic and background knowledge. It facilitates students to understand a listening text. Thus, in this stage, the teachers almost always pre-teaching useful vocabulary and activate students' relevant prior knowledge.

Also, among the sub-skills for pre-listening, it was found that activating learners' prior knowledge and pre-teaching vocabulary for making inferences were the two most common ones the teachers reported to have implemented with their students. This is easy to understand since stimulating students' relevant prior knowledge is important to generate high-quality inferences (Shepard-Carey, 2021) and the shortage of vocabulary causes students problems in expressing their inferences, which consequently hinders inference-making (Shepard-Carey, 2021). In addition, goal setting was also employed quite often due to the reason that if students recognize the ultimate aim of listening, which is understanding the text content, students were seen to be more willing to draw inferences to connect ideas and fill in missing details (Cain & Oakhill, 1999). Besides, the teachers seemed to highly acknowledge the importance of sound recognition when they paid attention to training their students on this skill quite frequently. It was said that this skill could complement top-down processing like inferencing and prevent perception

difficulties from interfering with students' interpretation of the listening text (Field, 2008).

While-listening techniques were also highly employed by the teachers. It should be recalled that the while-listening pedagogical techniques in teaching LIS were grouped into three categories which were tactics related to using listening tasks, using listening materials and other techniques. Among the three groups, the teachers prefer making use of various listening tasks to utilizing the other two. Specific activities the teachers rated as mostly highly include asking students with 5Ws questions, having them listen for the gist of the text, or getting students to listen and make predictions. Zohrabi and Shokrzadeh (2017) note that an influential factor which makes up successful listening instruction is using numerous suitable listening activities. Teachers' employment of listening material-related techniques such as utilizing and familiarizing students with diverse listening texts or providing an adequate amount of inferrable textual clues in listening was found to be relatively low.

It was also found from the study that post- and extension-stage pedagogical techniques were employed at a lower level among the teacher community. Inflexible and complicated teaching curriculum, classroom time constraints, and assignment designing problems could be the reasons why the teachers only sometimes utilized post and extension techniques.

In brief, regarding teaching LIS, the teachers mainly focused on pre-listening instruction while relatively frequently employing while-listening tactics, and they only averagely utilized post and extension-stage pedagogical techniques. Since the listening process requires intense concentration and is also covert, it is quite tough and impractical for teachers to provide any support or interfere with this process. That could be the reason why teachers had a tendency to pay more attention to the pre-listening stage than the while-listening with the hope to prepare their students well prior to this challenging and dependent journey. Moreover, proper instruction before listening could also boost students' confidence, thus, potentially enhancing their performance. In addition, teachers do not usually use post-listening techniques, which could be because of classroom time constraints. Furthermore, limited learning autonomy, demanding listening homework design, and the questionable efficiency of extension tasks may make teachers less favorable to employing extensive listening exercises.

6. Conclusions

This study was designed aiming to shed light on one particular group of listening skills, LIS, from the teachers' perspectives. In particular, its central focus was placed on the teachers' perceptions of LIS and its importance, the pedagogical techniques the teachers reported to have employed and the challenges they perceived to have encountered in teaching LIS to their students. Findings from the study suggest a certain level of awareness that the teachers held towards LIS. Such a picture, however, appeared to be incomplete and fragmented with many sub-components and skills missing. As also

reported by the teachers, they have employed different techniques in all lesson stages including pre-, while, post- and extension stages of their listening lessons, however, the main focus for IS development seems to be placed more in the pre- and while-stage. Nevertheless, a number of important activities and techniques that might be helpful in developing learners' LIS were found to be either unaware of or overlooked by the teachers. A number of important challenges coming from LIS itself, the learners, the listening materials and teachers were also identified which forms the foundation for any efforts to address the effectiveness of teaching listening skills in general or LIS in this particular context.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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