

Correlation between English Major Learners' Listening Comprehension Difficulties and their Use of Metacognitive Strategies of Listening during Online Listening Comprehension Courses

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Article information	Abstract
<p>Article history: Received: 20 Jan 2024 Accepted: 24 Jan 2025 Available online: 3 Feb 2025</p> <p>Keywords: Listening comprehension difficulties Metacognitive strategies of listening English major learners Online listening comprehension courses</p>	<p><i>This paper attempted to investigate the relationship between English major learners' use of metacognitive strategies of listening to overcome the difficulties they face while learning listening skills at Al-Balqa Applied University (BAU). The data was collected by administering an online Microsoft Form questionnaire to 168 first-year English major learners. The retrieved questionnaires were 104, with 99 valid for statistical analysis. The questionnaire main themes were the difficulties related to listener, speaker, content, lack of concentration, internet issues, and metacognitive strategies of listening. Data was analyzed using SPSS statistical analysis software (linear regression). The analysis revealed a positive correlation between English major learners' use of metacognitive strategies of listening when facing listening comprehension difficulties related to all themes. Nevertheless, the evident positive correlation became apparent when learners encountered difficulties associated with a lack of concentration and internet issues. These difficulties were perceived to require the implementation of metacognitive strategies of listening as an effective remedy. This study contributes to the understanding of English major learners' use of metacognitive strategies of listening during online learning of listening skills. Moreover, it reflects on the English major learners' awareness of metacognitive strategies of listening and calls for the need to teach these strategies deliberately.</i></p>

INTRODUCTION

The education industry has seen a significant transition due to the quick development of technology, changing how learners interact with course materials. For English major learners, online learning has presented novel, potential, and significant difficulties, particularly in the context of English language teaching. Listening comprehension is one of the key language skills

that are essential for language learning (Brown, 2001; Vandergrift, 1999) and English major learners find difficult to master (Sabina & Aura, 2014). Vandergrift (1999) asserted that listening is unquestionably “a complex active process” (p. 168). The listener must be able to differentiate between sounds, comprehend grammatical structures, and recognize the phonological features of a spoken language (Harmer, 2007). Understanding spoken language is a challenging and complex skill; as a result, English major learners usually struggle with it (Bidabadi & Yamat, 2014; Chen, 2017), particularly when taking lessons online (Jiang et al., 2021). The lack of an in-person connection and visual clues, and the distractions that come with an online learning environment are major difficulties to language learners.

To that effect, the integration of listening metacognition has been recognized as an effective intervention strategy in aiding listening comprehensiveness and minimizing the difficulties associated with online learning (Coskun, 2010; Movahed, 2014; Rahimirad & Shams, 2014; Rakhman et al., 2019). Learners will be able to regulate, control, and self-evaluate the processes that take place in their minds, which helps them to become in charge of their own their learning (Chen, 2017; Rahimirad & Shams, 2014; Rakhman et al., 2019). This self-awareness empowers the learners to realize their capabilities and points of weakness in listening comprehension; they can; therefore, be in a position to work out the best strategies that enable them understand better (Rahimirad & Shams, 2014; Rakhman et al., 2019). Understanding the difficulties affecting listening comprehension from the learners’ perspective is important in planning the right approaches, listening tasks as well as course development (Hasan, 2000). In addition, the awareness that the learners have on the listening process should be taught with an intention of improving the skills and speeding up the process of learning the new language (Vandergrift et al., 2006).

Despite the remarkable recognition of the practicality of metacognitive strategies of listening in enhancing listening comprehension, extensive research is still needed. The employability of these strategies by English major learners in online context has not been examined in depth. This research intended to deal with this gap by exploring how English major learners used metacognitive strategies of listening to overcome online listening comprehension difficulties. As a result, this research paper attempted to respond to the following questions and hypotheses:

- Q1.** What listening comprehension difficulties do English major learners face in online listening comprehension courses?
- Q2.** Is there a significant relation between listening comprehension difficulties English major learners face and their use of the metacognitive strategies of listening to overcome them?

The following hypothesis and its supporting hypotheses are presented in order to fully respond to the second question.

- H01:** There is no significant relationship between metacognitive strategies of listening used by English major learners and their listening comprehension difficulties.
- H01a:** There is no significant relationship between metacognitive strategies of listening used by English major learners and content difficulty.

H01b: There is no significant relationship between metacognitive strategies of listening used by English major learners and listener difficulty.

H01c: There is no significant relationship between metacognitive strategies of listening used by English major learners and lack of concentration difficulty.

H01d: There is no significant relationship between metacognitive strategies of listening used by English major learners and speaker difficulty.

H01e: There is no significant relationship between metacognitive strategies of listening used by English major learners and internet issues difficulty.

LITERATURE REVIEW

The relationship between listening comprehension difficulties English major learners face and their employment of metacognitive strategies of listening during online classes attracted the attention of researchers in language pedagogy. Some scholars focused only on listening comprehension difficulties while others examined these difficulties during online learning. Another group of researchers investigated the difficulties and the solutions to overcome them. Their findings rendered insights into these difficulties and the effectiveness of metacognitive strategies of listening in refining listening comprehension skills in online contexts. According to Vandergrift et al. (2006), learners who have metacognitive abilities are “aware of their own learning processes and perceptive of the demands of their learning tasks” (p. 435). Metacognitive strategies that are used during listening tasks include three main constituents; i.e. planning, monitoring and evaluating (Vandergrift, 1999). Learners can prepare themselves to the listening task by prediction (planning), they can also keep concentration and verify their comprehension during the listening (monitoring), and finally, they reflect on their progress and identify their points strength and weakness (Vandergrift, 1999). Moreover, Vandergrift et al. (2006) pointed out that learners’ awareness of these strategies, help them to become better language learners, which, ultimately, will enable them to acquire skills of another language more efficiently. As a result, being empowered and aware of the metacognitive strategies facilitate the learning process of listening skill.

Listening comprehension difficulties

Listening comprehension difficulties received distinct focus in teaching English as a foreign language (TEFL) context. Just like other English learners, Arab learners find it difficult to understand spoken English. One significant study on Arab learners of English was by Hamoudeh (2013). He investigated the listening difficulties English major learners face in Saudi Arabia using a survey to English learners and semi-structured interviews. His aim was to understand their perceptions on the effectiveness of learning listening skills, the difficulties they encountered while listening, and the best strategies the instructors might adopt to help the learners deal with these difficulties. The difficulties included “five categories: listening material, linguistic aspects, lack of concentration, speaker, listener, psychological category, and physical setting” (p. 119). The results of the study identified significant difficulties that Saudi English major learners encountered while listening. For instance, learners were influenced by speech pace, pronunciation difficulties, narrow vocabulary, accent variations, low quality of recordings, lack

of concentration, and anxiety. Trying to identify these difficulties may enable English language instructors to support their learners with effective learning methods, thus improving their listening comprehension.

In online learning context, Linh and Ngo (2021) identified the difficulties with English listening comprehension for English major learners who attended online classes through Microsoft Teams (MST) along with their attitudes towards them. Among the challenges they investigated are internet and software, cognitive overload, listener factor, technology factor, English ability, and learning environment. Their findings showed that “cognitive overload and technology had the highest mean ... they are the two barriers that most students suffer when using MS Teams to study listening comprehension” (p. 162). Linh and Ngo (2021) believed that the advantages of good implementation of online classes surpass those of face-to-face classes. They noted that English learners had problems understanding listening content, being active participants, and dealing with “unclear sounds caused by low-quality devices” (p. 166). Because of “limited vocabulary and lack contextual knowledge” (p. 166), the complexity of English texts was heightened. Moreover, distractions like noise and web diversions “such as games, YouTube” (p.166) made it harder to stay focused. In contrast, English learners perceived MST positively. MST is highly regarded by many English learners for its simplicity and efficiency. Virtual classes provided them with a sense of comfort and helped them avoid peer judgment. However, they faced difficulties such as missing notifications of online classes, limited teacher supervision, minimum peer interaction, and possible effects on their physical health. Due to these difficulties, they are not certain about joining online courses in the future.

Similarly, Nurani and Widiati (2021) studied English major learners' viewpoints related to difficulties they face during online listening courses during the Covid-19. The findings of their research highlighted various difficulties. According to their learners, the most difficult one was the lack of concentration due to the surrounding distractions. Learners were unable to focus while listening. Other obstacles included technical issues “such as lousy internet connection, power failure, and non-optimal use of the internet quota for education from the government and/or campus” (p. 137). Even with these difficulties, the perceptions of the difficulties of online learning was significantly higher than their perceptions of online listening courses. This showed “that although they enjoy the online learning process, they feel more difficulty when doing it” (p. 137).

Metacognitive listening comprehension strategies

Many scholars have proposed and verified the use of metacognitive strategies as an effective remedy for these difficulties such as Bozorgian's (2014), Chen's (2010), Coskun's (2010) Movahed's (2014), and Rahimirad and Shams' (2014) who underscored the constructive role of metacognitive strategies in refining listening proficiency. Their results pointed out an ample and promising impact of teaching metacognitive strategies. The scores of their experimental groups on posttests were better when they were compared to the control groups. Rahimirad and Shams' (2014) study revealed that “metacognitive strategy instruction can significantly improve listening performance among EFL students and raise their metacognitive awareness of the processes involved during listening task” (p. 171). Likewise, Chen's (2010) study

“indicated that students not only increased their use of some high level strategies, but decreased their use of strategies that were more primitive, in order to achieve effective comprehension” (p. 157). Moreover, the results in Chen (2010) acknowledged “the effectiveness of teaching strategies explicitly to make students consciously reflect on their strategy use on a regular basis, so as to significantly enhance the positive changes in their strategy repertoires” (p. 157).

Movahed’s (2014) study has also showed similar findings. The “results revealed that the experimental group significantly outperformed the control group on the post-tests, and so the positive effect of the metacognitive strategy instruction on students’ listening performance, metacognitive awareness and listening anxiety were verified” (p. 88). Similarly, Bozorgian (2014) and Coskun (2010) extended this perspective by demonstrating the effectiveness of integrating metacognitive instruction into regular classroom activities. Coskun’ (2010) findings supported the significances of metacognitive strategies in enhancing listening comprehension. His study asserted that “metacognitive strategy training should be incorporated into the regular listening teaching program to help students become more effective listeners” (p. 35). Bozorgian’s (2014) findings were also in line with the previous studies. His “results demonstrated that metacognitive instruction through the process-based approach increased listener awareness of the listening process and that listeners used metacognitive strategies to control their listening process and to improve their listening performance” (p. 157). These studies and many others underscored the favorable influence of metacognitive instruction on listening abilities, differing slightly in their focus on specific metacognitive strategies of listening.

In the same vein, Namaziandost et al. (2019) examined an association between English major learners use of strategies and the difficulties they encounter while listening. They intended to discern the strategies that English learners use repetitively and to determine the connection between their listening comprehension difficulties and their strategies. They have highlighted listening difficulties of “input, context, listener, process, affect, and task while the listening strategies consisted of cognitive, meta-cognitive, and socio-affective strategies” (p. 1). Their results revealed that “input” and “affect” were English learners' two main areas of difficulty with listening comprehension. The major difficulties were lengthy texts with unfamiliar words, fast speech rate, and strange accents. Their findings showed that “the most frequently used strategy among the respondents of the study which were Iranian English language students is the metacognitive techniques” (p. 16). Furthermore, their findings also showed that “the relationship between listening problems and strategy usage among the learners was statistically significant and negative” (p. 1).

Rakhman et al. (2019) have also investigated the listening difficulties that English majors encounter and the strategies they use to handle them. The researchers used questionnaires, observations and semi-structured interviews with the method of think-aloud protocol (TAP). They clarified that they used TAP to “provide valid data about listening strategies applied by EFL learners....to know how the students' cognitive process in solving the problems when they experience listening” (p. 62). Based on Rakhman et al.’s (2019) research, the findings revealed that “inadequate practices outside the classroom, short-term memory problems, homophones, and speech rate” (p. 63) are the main difficulties Indonesian EFL learners face. Nevertheless,

these learners use metacognitive strategies of “note-taking, skipping, and using imagery” (p. 63) to address these difficulties. These metacognitive strategies of listening assisted English major learners to memorize information, improve comprehension, stay focused, and ultimately enhance listening comprehension skill.

In a related study, Fu et al. (2023) further explored the relationship between metacognitive awareness, as assessed through the metacognitive awareness listening questionnaire (MALQ), and the performance in the second language (L2) listening comprehension. The findings from their study complemented the perspectives of Rahimirad and Shams (2014) and Bozorgian (2014). Fu et al. (2023) substantiated the positive correlation between Chinese learners' metacognitive awareness of listening and their overall performance in listening tests. Heightened metacognitive awareness was closely correlated with improved listening scores. Furthermore, Fu et al. (2023) highlighted a strong connection between metacognitive awareness and specific listening subskills, specifically the ability to extract detailed information, make inferences, and recognize main ideas. This sheds additional light on how metacognitive processes affect fundamental aspects of listening comprehension, reinforcing the significance of integrating metacognitive strategies of listening in EFL listening instruction.

METHODOLOGY

Data collection

The data collection took place during March to June 2023. The population of the research encompassed all first year English major learners in the Department of English Language and Literature (168) at BAU (Jordan). The link to the questionnaire was displayed on MST Form following an orientation on how to fill it. The items of the questionnaire were in English and Arabic to ensure comprehension. The researchers obtained the email addresses of English major learners from the Computer Center at the BAU. The number of retrieved questionnaires was 104, while 99 were suitable for statistical analysis.

Research instrument

The researchers adopted a quantitative methodological approach to answer the questions and to test the hypotheses of the study. We designed an online questionnaire to be self-completed using MST Form application. We used a five-point Likert scale of 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always to understand the connection between the difficulties English learners face while listening and their use of metacognitive strategies of listening. The questionnaire was adapted from the existing literature (see Table 1). Initially, three experts in English language teaching reviewed the first draft of the questionnaire for validity. The experts' suggestions were incorporated to create the final version of the questionnaire.

Table 1
Sources of items used in the questionnaire

Factor	Source
Content difficulty	Hamouda, A. (2013).
Listener difficulty	Hamouda, A. (2013).
Speaker difficulty	Hamouda, A. (2013).
Concentration difficulty	Calub C. and Calub M. (2021)
Internet difficulty	Linh, H. G. and Ngo, T. T. C. (2021)
Metacognitive strategies of listening	Vandergrift et al. (2006)

Statistical reliability of instruments was confirmed based on Cronbach alpha coefficients. Hair et al. (2019) proposed [0.70] as a minimum acceptable value for Cronbach's alpha to confirm statistical reliability. Referring to Table (2), all factors recorded a Cronbach alpha coefficient greater than [0.70] showing acceptable levels of statistical reliability for factors instruments. Further, the internal consistency of factor instruments was confirmed based on significant correlations between each factor total score and its proposed items. Indeed, all items were found significantly correlating to their corresponding factor total score. All correlations were significant, positive, and greater than [0.20] minimum acceptable level of Pearson correlation for internal consistency check (Pallant, 2020).

Table 2
Statistical reliability and internal consistency check (n = 99)

Factor	Statement	r	Factor	Statement	r
Content difficulty Cronbach alpha [0.873]	Item1	0.741**	Internet difficulty Cronbach alpha [0.790]	Item1	0.845**
	Item2	0.781**		Item2	0.722**
	Item3	0.823**		Item3	0.729**
	Item4	0.859**		Item4	0.838**
	Item5	0.832**		Item1	0.585**
Listener difficulty Cronbach alpha [0.822]	Item1	0.806**	Metacognitive Cronbach alpha [0.902]	Item2	0.728**
	Item2	0.771**		Item3	0.685**
	Item3	0.839**		Item4	0.716**
	Item4	0.815**		Item5	0.696**
	Item1	0.674**		Item6	0.771**
Speaker difficulty Cronbach alpha [0.830]	Item2	0.887**	Concentration difficulty Cronbach alpha [0.799]	Item7	0.662**
	Item3	0.826**		Item8	0.277**
	Item4	0.858**		Item9	0.752**
	Item1	0.886**		Item10	0.731**
	Item2	0.795**		Item11	0.684**
//	Item3	0.849**	Item12	0.765**	
			Item13	0.593**	
			Item14	0.659**	

** Correlation is significant at the 0.01 level (2-tailed)

Analysis strategy

This study is based on quantitative data gathered using a survey. Data analysis was completed using the statistical package for social sciences [SPSS v.26]. The analysis started with data

coding and preliminary analysis by checking for outliers and normality issues. After that, Cronbach alpha and Pearson correlations provided instruments check. Further descriptive analysis was conducted to display sample agreement levels toward proposed factors. Finally, Pearson correlation and the Simple Linear Regression Model provided hypotheses testing.

Data coding and screening

In total, 104 completed surveys were collected. Data was coded by assigning weights for assessments. The patterns in assessments were detected based on standard deviation (STD). Looking at Likert scale items with a STD of approximately zero, one can see a potential pattern. Three responses were omitted from the sample due to the same consistent repeated answers on all survey items by scoring zero STD. Accordingly, 101 responses were retained. Further, outliers which are influential responses were examined based on the Z-score [the standardized values] for univariate outliers check. Univariate outliers exist in case of having a Z-score outside $[\pm 3.29]$ range as proposed by (Tabachnick & Fidell, 2013). Neither of the Z-score values exceeded the proposed range. This showed that univariate outliers were not an issue.

Meanwhile, for the multivariate outliers check, Cook's distance coefficients were examined (Kim, 2017) which proposed that a Cook's distance which is greater than $[0.1]$ showed an outlier. For the regression model examining the influence of metacognitive strategies of listening on listening comprehension difficulties, Cook's distance was examined, and showed that two observations scored Cook's distance $[0.17011]$ and $[0.11686]$ exceeding $[0.1]$ proposed cutoff. Thereby, outliers in data accordingly were omitted from the sample, and the final valid sample comprised 99 responses.

Data was free of normality issues. George and Mallery (2011) recommended examining both skewness and kurtosis issues to check for symmetry issues in data. Normality violation exists as skewness or kurtosis coefficients exceed $[\pm 2.3]$ cutoff, as displayed in Table (3). Neither skewness nor kurtosis coefficients were outside the proposed range, entailing that normality assumption prevailed for data. Accordingly, parametric analysis is valid to use.

Table 3
Skewness and kurtosis for data normality check (n = 99)

Factor	Skewness	Kurtosis
Content difficulty	.398	-.469
Listener difficulty	.252	-.707
Speaker difficulty	.247	-.721
Concentration difficulty	.327	-.779
Internet difficulty	.430	-.458
Metacognitive strategies of listening	.152	-.583

The valid clear sample comprised 99 valid responses. Male respondents were $n = 31, 31.3\%$, and $n = 68, 68.7\%$ were females. A valid dataset was used to proceed with further analysis.

FINDINGS AND DISCUSSION

The findings of the study will be presented according to the questions:

Q1. What listening comprehension difficulties do English major learners face in online listening comprehension courses?

The answer was based on descriptive results [Mean and STD] for respondents' agreement on the proposed difficulties. The average (mean) tells us the typical or central value of the responses, and the standard deviation (STD) clarifies how much the responses tend to deviate from that average. Referring to Table (4), all proposed difficulties were in moderate levels of agreement as far as the mean is concerned. The most perceived difficulty was the listener [Mean = 2.77]. The second order of difficulties was the speaker [Mean = 2.74]. The third was concentration difficulty [Mean = 2.73] followed by content difficulty [Mean = 2.71] and the least difficulty was in internet issues [Mean = 2.58]. The STD values, on the other hand, reported the existence of homogeneity in assessments. This means that for most of the difficulties mentioned (listener, speaker, content, and internet), the responses were fairly consistent or similar. This was because all STD values for these difficulties were less than 1, which indicated that the responses did not deviate much from the average.

Still, for concentration difficulty, the standard deviation was slightly higher (1.03), exceeding the cutoff of 1. This suggested that there was more variability or disagreement among respondents in how they rated this difficulty. In other words, some respondents might have rated concentration difficulty very differently from others, leading to a higher standard deviation. The implications of non-homogeneity in concentration difficulty assessment could be related to the variability in interpretation. For example, one student may consider searching for answers while listening is a distraction, and another may perceive it as a significant hindrance to concentration. In contrast, some learners may be influenced by their personal experiences or cognitive abilities when rating the concentration difficulty. For instance, a student with a strong vocabulary might not find thinking about the meaning of new words as distracting compared to another who has limited vocabulary.

Table 4
Descriptive results for difficulties that English major learners face in online listening comprehension courses (n = 99)

No.	Order	Difficulty	Mean	Std.	Level of difficulty (LD)
1	4	Content difficulty	2.71	0.90	Moderate
2	1	Listener difficulty	2.77	0.89	Moderate
3	2	Speaker difficulty	2.74	0.90	Moderate
4	3	Concentration difficulty	2.73	1.03	Moderate
5	5	Internet difficulty	2.58	0.93	Moderate

For more understanding of the difficulties that respondents face, Table (5) provides a detailed breakdown of specific difficulty aspects, showing that the mean scores for all items also fall within the moderate range. This reinforces the overall finding that while respondents do face challenges in online listening comprehension, these challenges were generally moderate in severity.

Table 5
Descriptive results for the difficulties items that English major learners face in online listening comprehension courses (n = 99)

Order	Statement	Mean	Std.	LD
Content difficulty				
4	Complex grammatical structures interfered with my listening comprehension	2.68	0.99	Moderate
3	I find it difficult to understand listening texts in which there are too many unfamiliar words including jargon and idioms	2.76	1.03	Moderate
2	I find it difficult to interpret the meaning of a long-spoken text	2.86	1.12	Moderate
1	I find it difficult to understand listening texts when the topic is unfamiliar	2.88	1.23	Moderate
5	I find the listening passage difficult to understand	2.35	1.16	Moderate
Overall mean		2.71		Moderate
Listener difficulty				
2	I find it difficult to get a general understanding of the spoken text from the first listening	2.80	1.02	Moderate
1	At the time of listening, I find it difficult to predict what would come next.	2.90	1.13	Moderate
3	I find it difficult to remember quickly words or phrases I have just heard.	2.73	1.13	Moderate
4	I found it difficult to recognize the words I knew because of the way they were pronounced.	2.67	1.12	Moderate
Overall mean		2.77		Moderate
Speaker difficulty				
4	I find it difficult to understand the natural speech, which is full of hesitation and pauses.	2.26	1.01	Low
2	I find it difficult to understand the meaning of words that are not pronounced clearly.	2.89	1.13	Moderate
3	I find it difficult to understand well when speakers speak with a variety of accents.	2.72	1.10	Moderate
1	I find it difficult to understand when speakers speak too fast.	3.10	1.16	Moderate
Overall mean		2.74		Moderate
Lack of concentration difficulty				
1	I am unable to concentrate because I search for the answers, and listen to the dialogue at the same time.	2.94	1.31	Moderate
3	I lose focus of the talk when I have an expected answer in my mind.	2.34	1.14	Moderate
2	I lose my concentration when I think about the meaning of new words.	2.91	1.21	Moderate
Overall mean		2.73		Moderate
Internet difficulty				
2	The nature of the sound I listen to is influenced by the speed of my internet connection.	2.58	1.17	Moderate
4	When listening to the lecture, I frequently become disconnected	2.07	1.03	Low
1	I lose my concentration if the recording is of poor quality.	3.28	1.23	Moderate
3	The speed of the audio is affected by my internet connection.	2.39	1.32	Moderate
Overall mean		2.58		Moderate

Interpretation of the mean scores

To provide a clear understanding of the respondents' perceptions of listening comprehension difficulties, the mean scores were interpreted using the following criteria (see Table 6) that were determined based on the distribution of mean scores obtained in the study:

Table 6
Criteria for the interpretation of the mean scores

Low	Moderate	High
1.00 - 2.33	2.34 - 3.66	3.67 - 5.00

The content difficulty

For content difficulty, the overall mean value was [Mean = 2.71] showing an overall moderate level of this difficulty among respondents. The most critical aspect of content difficulty was [I find it difficult to understand listening texts when the topic is unfamiliar] scoring the highest mean value of [Mean = 2.88]. Meanwhile, the aspect [I find the listening passage difficult to understand] was least critical among respondents scoring the least mean value [Mean = 2.35]. Further, the majority of STD values were greater than [1], thereby showing non-homogeneity in assessments among respondents. Various factors might affect content difficulty. For example, complex grammatical constructions, lengthy texts, and strange vocabulary heightened the level of difficulty in listening comprehension because they necessitate an advanced level of language ability and cognitive treatment. These results were in alignment with Linh and Ngo (2021) and Namaziandost et al. (2019) who agreed that listening skill could be hindered by long texts that have unfamiliar words and the complexity some English texts.

The listener difficulty

Concerning listener difficulty, the overall mean value was [Mean = 2.77] showing an overall moderate level of this difficulty among respondents. The most critical aspect of listener difficulty was [At the time of listening, I found it difficult to predict what would come next] scoring the highest mean value of [Mean = 2.90]. Meanwhile, the aspect [I found it difficult to recognize the words I know because of the way they are pronounced] was least critical among respondents scoring the least mean value [Mean = 2.67]. Further, all STD values were greater than [1] thereby showing non-homogeneity in assessments among respondents. Equally, aspects of listener difficulty were related to the innate complexity of spoken English. These aspects embraced quickly understanding the main idea, predicting the upcoming content, and recalling information simultaneously. These results corresponded to Hamoudeh (2013), Namaziandost et al. (2019), and Rakhm et. al. (2019) findings who confirmed that listener's limited words, homophones, anxiety, and inadequate practice outside regular classes were the main factors of listener's difficulty.

The speaker difficulty

The overall mean value for the speaker difficulty was [Mean = 2.74] showing an overall moderate level of this difficulty among respondents. The most critical one was [I find it difficult to understand when speakers speak too fast] scoring the highest mean value of [Mean = 3.10]. Meanwhile, the aspect [I find it difficult to understand the natural speech which is full of hesitation and pauses] was least critical among respondents scoring the least mean value [Mean = 2.26], thereby showing low level of agreement toward this aspect. Further, all STD values were greater than [1], thus showing non-homogeneity in assessments among respondents. Factors such as accents variations, speech rate, and clarity of articulation might hindered the listening comprehension particularly for non-native speakers. Findings of Hamoudeh (2013), Namaziandost et al. (2019), and Rakhm et. al. (2019) concur with these findings. They highlighted factors like accent variations, pronunciations, and fast speech rate to be the most difficult for English non-native speakers.

The lack of concentration difficulty

Concentration difficulty overall mean value was [Mean = 2.73] showing an overall moderate level of this difficulty among respondents. The most critical one was [I am unable to concentrate because I search for the answers, and I listen to the dialogue at the same time] scoring highest mean value of [Mean = 2.94]. Meanwhile, the aspect [I lose focus of the talk when I have an expected answer in my mind] was least critical among respondents scoring the least mean value [Mean = 2.34]. Further, all STD values were greater than [1], thereby showing non-homogeneity in assessments among respondents. Aspects of lack of concentration were related to the cognitive processes of multitasking, staying focused when distracted, and dealing with new information while listening. Hamoudeh (2013) and Rakhman et al. (2019) studies emphasized that English major learners faced the difficulties of lack of concentration and short-term memory.

The internet issues difficulty

Finally, for internet difficulty, the overall mean value was [Mean = 2.58] showing an overall moderate level of this difficulty among respondents. The most critical one was [I lose my concentration if the recording is in poor quality] scoring the highest mean value of [Mean = 3.28]. Meanwhile, the aspect [When listening to the lecture, I frequently become disconnected] was least critical among respondents scoring the least mean value [Mean = 2.07], thereby showing a low level of agreement toward this aspect. Further, all STD values were greater than [1], thereby showing non-homogeneity in assessments among respondents. Internet factors were related to internet speed, interruptions, and audio speed that was affected by internet connections. Linh and Ngo (2021) and Nurani and Widiati (2021) also found that English major learners encountered difficulties such as external distractions, controlled data usage, poor internet-connection, and power failures.

Q2. Is there a significant relation between listening comprehension difficulties English major learners face and their use of the metacognitive strategies of listening to overcome them?

To answer the proposed question, its related hypotheses went under testing. In the beginning, Pearson correlations were gathered to examine correlations between proposed difficulties and metacognitive strategies of listening. Then a simple regression model was applied to test the correlation between each proposed difficulty and metacognitive strategies of listening. Table (7) displayed the correlation matrix between metacognitive strategies of listening and the proposed difficulties.

Table 7
Correlation matrix between metacognitive strategies of listening and proposed difficulties (n = 99)

Item	1	2	3	4	5	6	7
Content difficulty	1						
Listener difficulty	0.693**	1					
Speaker difficulty	0.513**	0.627**	1				
Lack of concentration difficulty	0.506**	0.624**	0.641**	1			
Internet issues difficulty	0.326**	0.369**	0.312**	0.338**	1		
Overall listening comprehension difficulties	0.781**	0.854**	0.799**	0.817**	0.608**	1	
Metacognitive - listening strategies	0.161	0.079	0.163	0.205*	0.248*	0.224*	1

** Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Pearson correlations gathered in Table (7) showed that overall listening comprehension difficulties, together with lack of concentration and internet difficulties recorded significant positive correlations with metacognitive strategies of listening. The overall listening comprehension difficulties correlated positively with metacognitive strategies of listening (correlation coefficient of 0.224*). This means that learners who faced greater overall difficulties in listening comprehension tended to employ metacognitive strategies of listening more frequently. Furthermore, there was a positive correlation (0.205*) between lack of concentration difficulties and the use of metacognitive strategies of listening. This suggested that when learners experience difficulty concentrating while listening, they were more likely to use strategies to manage and overcome these difficulties. Similarly, internet issues showed a positive correlation (0.248*) with metacognitive strategies of listening. Learners facing difficulties related to internet connectivity were also likely to use metacognitive strategies of listening to cope with these difficulties.

The significant positive correlations implied that learners facing higher difficulties were indeed more inclined to use metacognitive strategies of listening. These strategies likely served as coping mechanisms to help manage and alleviate the impact of these difficulties on their listening comprehension. It also suggested an adaptive behavior among learners. When confronted with difficulties such as lack of concentration or internet issues, learners actively employed strategies that involved planning, monitoring, and evaluating their listening processes. This behavior was indicative of a proactive approach to learning where learners were not passively struggling but were actively seeking ways to improve their comprehension. To provide the decision for the main hypothesis, the Simple Linear Regression Model was applied and the results were as follows:

H0.1: There is no significant relationship between metacognitive strategies of listening used by English major learners and their listening comprehension difficulties.

Table 8

Results of simple linear regression equation for the influence of metacognitive listening strategies on overall listening comprehension difficulties (n = 99)

(R)	(R ²)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F
0.224	0.050	0.224	2.263	0.026*	5.122	0.026*

Dependent variable: Overall listening comprehension difficulties

*Significant at the level ($\alpha \leq 0.05$)

Referring to Table (8), the Simple Linear Regression model examining the influence of metacognitive strategies of listening on overall listening comprehension difficulties was significant as model F calculate was [F = 5.122, P = 0.026] showing a significant influence. The correlation coefficient was ($r = 0.224$) entailing a positive moderate correlation. As a result, as overall listening comprehension difficulties increased, metacognitive strategies of listening increased as well. Regarding the model fit, the coefficient of explained variance R² was (0.050), showing low explanation power by the model predictor. The beta coefficient of metacognitive strategies of listening was [$\beta = 0.224$] entailing that each one unit increase in metacognitive strategies of listening resulted from an increase in overall listening comprehension difficulties by [22.4%]. These findings rendered no support for null H₀.1 and support for alternative H₁.

In other words, the p-value (0.026) was less than the threshold of 0.05, indicating that the relationship between metacognitive strategies of listening and overall listening comprehension difficulties was statistically significant. This showed that the observed relationship was unlikely to be due to chance. Moreover, the correlation coefficient of 0.224 indicated a weak to moderate positive correlation. This meant that as listening comprehension difficulties increased, the use of metacognitive strategies of listening tended to increase, but the relationship was not very strong. These findings had several key implications. Firstly, the weak to moderate correlation suggested that some learners did indeed use metacognitive strategies of listening more when they faced higher difficulties in listening comprehension. This was a positive sign that learners were attempting to cope with their difficulties by employing strategies that could help them manage and improve their listening skills. Secondly, the relatively low correlation coefficient implied that metacognitive strategies of listening were only a small part of the picture. There were likely other factors influencing listening comprehension difficulties. These could include individual learner differences, teaching methods, the quality of listening materials, environmental factors, and more. It indicated that while metacognitive strategies of listening were important, they were not the sole factor affecting listening comprehension difficulties.

As for the low explanatory power, R² value indicated how much of the variance in the dependent variable (overall listening comprehension difficulties) could be explained by the independent variable (metacognitive strategies of listening). An R² of 0.05 meant that only 5% of the variation in listening comprehension difficulties could be explained by the use of metacognitive strategies of listening. It is evident that the low R² value suggested that the model did not explain much of the variation in listening comprehension difficulties. This meant that metacognitive strategies of listening alone were not sufficient to account for most of the differences in listening comprehension difficulties among learners. Second, since 95% of the variation was unexplained by this model, there were likely many other factors at play. These could include

cognitive factors (e.g., memory capacity, attention span), linguistic factors (e.g., vocabulary knowledge, grammar understanding), psychological factors (e.g., motivation, anxiety), and contextual factors (e.g., quality of instruction, access to resources). Finally, these findings suggested that a broader approach was needed to address listening comprehension difficulties. While promoting metacognitive strategies of listening was beneficial, educators and researchers should also consider and address other influential factors to provide a more comprehensive support system for English major learners.

To determine the decision for every suggested sub-hypothesis, we also used the Simple Linear Regression Model, and the findings for each hypothesis were outlined below:

H01a: There is no significant relationship between metacognitive strategies of listening used by English major learners and content difficulty.

Table 9
Results of the simple linear regression equation for the influence of metacognitive strategies of listening on content difficulty (n = 99)

(R)	(R ²)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F.
0.161	0.026	0.161	1.609	0.111	2.588	0.111

Dependent variable: Content difficulty

*Significant at the level ($\alpha \leq 0.05$)

The Simple Linear Regression model examining the influence of metacognitive strategies of listening on content difficulty was non-significant as model F calculate was [$F = 2.588$, $P = 0.111$]. These findings provided support for null H0.1a ($P = 0.111$). This indicated no significant relationship between content difficulty and the use of metacognitive strategies of listening. It also suggested that learners did not significantly increase their use of metacognitive strategies of listening when faced with content-related difficulties. One possible reason for this was that content difficulties, which might include complex vocabulary, unfamiliar topics, or dense informational content, ought to be perceived as inherent difficulties of the material itself rather than issues that could be managed through strategic planning or self-regulation. Learners might find content difficulties to be more about the need for external resources and support, such as additional instruction, simplified materials, or increased background knowledge, rather than internal strategies. Consequently, they might not see metacognitive strategies of listening as directly applicable to overcoming these types of difficulties. Instead, they might rely more on seeking clarification from teachers, using supplementary study aids, or engaging in repeated practice with the content.

The non-significant relationship and the low R^2 value suggested that other factors likely played a more significant role in addressing content difficulties. These factors could include the quality of instructional materials, the availability of scaffolding and support from educators, the learners' prior knowledge and background in the subject matter, and their overall cognitive and linguistic abilities. Understanding that metacognitive strategies of listening were not a one-size-fits-all solution was important for educators to provide targeted support that addressed the specific nature of content difficulties, potentially integrating these strategies with other pedagogical approaches to enhance comprehension and learning outcomes.

H01b: There is no significant relationship between metacognitive strategies of listening used by English major learners and listener difficulty.

Table 10
Results of the simple linear regression equation for the influence of metacognitive strategies of listening on listener difficulty (n = 99)

(R)	(R2)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F
0.079	0.006	0.079	0.782	0.436	0.612	0.436

Dependent variable: Listener difficult

*Significant at the level ($\alpha \leq 0.05$)

The Simple Linear Regression model examining the influence of Metacognitive strategies of listening on listener difficulty was non-significant as model F calculate was [F = 0.612, P = 0.436]. These findings provided support for null H0.1b. This indicated no significant relationship between listener difficulty and the use of metacognitive strategies of listening. This lack of significant correlation suggested that learners did not necessarily resort to metacognitive strategies of listening when faced with difficulties related to their own listening abilities, such as understanding accents or processing speed. One possible reason for this was that listener difficulties might be perceived as personal limitations rather than external difficulties that could be managed through strategic interventions. Learners might feel that these difficulties were less controllable and therefore might not attempt to employ metacognitive strategies of listening to overcome them, which was opposed to more concrete issues such as technical difficulties and concentration lapses

H01c: There is no significant relationship between metacognitive strategies of listening used by English major learners and lack of concentration difficulty.

Table 11
Results of the simple linear regression equation for the influence of metacognitive strategies of listening on lack of concentration difficulty (n = 99)

(R)	(R2)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F
0.205	0.042	0.205	2.060	0.042*	4.243	0.042*

Dependent variable: Lack of concentration difficulty

*Significant at the level ($\alpha \leq 0.05$)

Referring to Table (11), the Simple Linear Regression model examining the influence of metacognitive strategies of listening on lack of concertation difficulty was significant as model F calculate was [F = 4.243, P = 0.042] showing a significant influence. The correlation coefficient was ($r = 0.205$) entailing a positive moderate correlation. Thereby as lack of concertation difficulty increased, metacognitive strategies of listening increased. Regarding model fit, the coefficient of explained variance R2 was (0.042), showing low explanation power by the model predictor. The beta coefficient of metacognitive strategies of listening was [$\beta = 0.205$] entailing that each one unit increase in metacognitive strategies of listening resulted from an increase in lack of concentration difficulty by [20.5%]. These findings rendered no support for null H0.1c

and support for alternative H1c. This implied that learners with more concentration difficulties did tend to use these strategies somewhat more, but the relationship was not strong. The low R^2 value (0.042) indicated that only 4.2% of the variance in concentration difficulties was explained by metacognitive strategies of listening. This suggested that while metacognitive strategies of listening were used to address concentration issues, many other factors were likely influencing learners' ability to concentrate. These could include psychological factors such as motivation and anxiety, environmental factors like the study environment, and individual differences in cognitive capacities. Thus, while metacognitive strategies of listening played a role, they are only a small part of the broader context affecting concentration.

H01d: There is no significant relationship between metacognitive strategies of listening used by English major learners and speaker difficulty.

Table 12
Results of the simple linear regression equation for the influence of metacognitive strategies of listening on speaker Difficulty (n = 99)

(R)	(R2)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F
0.163	0.026	0.163	1.624	0.108	2.636	0.108

Dependent variable: Speaker difficulty

*Significant at the level ($\alpha \leq 0.05$)

The Simple Linear Regression model examining the influence of metacognitive strategies of listening on speaker difficulty was non-significant as model F calculate was [F = 2.636, P = 0.108]. These findings provided support for null H0.1d. This finding indicated no significant relationship between speaker difficulty and metacognitive strategies of listening. It suggested that learners might find it challenging to apply metacognitive strategies of listening effectively to issues arising from the speaker, such as unclear pronunciation or rapid speech rate. These difficulties were often external and immediate, making it hard for learners to anticipate and plan for them in advance. Metacognitive strategies of listening typically involved planning, monitoring, and evaluating one's own listening process, which might not be as effective for dealing with real-time, speaker-related issues that required immediate adaptation and response. Consequently, learners might not see these strategies as useful in managing difficulties that originated from the speaker's side.

H01e: There is no significant relationship between metacognitive strategies of listening used by English major learners and the internet issues difficulty.

Table 13
Results of the simple linear regression equation for the influence of metacognitive strategies of listening on internet issues difficulty (n = 99)

(R)	(R2)	Beta	Value (T)	Sig. (T)	F Calculate	Sig. F
0.248	0.061	0.248	2.520	0.013*	6.351	0.013*

Dependent variable: Internet issues difficulty

*Significant at the level ($\alpha \leq 0.05$)

Finally, the Simple Linear Regression model examining the influence of metacognitive strategies of listening on internet issues difficulty was significant as model F calculation was [$F = 6.351$, $P = 0.013$] showing a significant influence. The correlation coefficient was ($r = 0.248$) entailing a positive moderate correlation. Thereby as internet issues difficulty increased, metacognitive strategies of listening increased. Regarding the model fit, the coefficient of explained variance R^2 was (0.061), showing low explanation power by the model predictor. The beta coefficient of metacognitive strategies of listening was [$\beta = 0.248$] entailing that each one unit increase in metacognitive strategies of listening resulted from an increase in internet issue difficulty by [24.8%]. These findings rendered no support for null H_0 and support for alternative H_1 . This suggested that learners experiencing more internet difficulties tended to employ metacognitive strategies of listening somewhat more frequently. However, the correlation was not strong, implying that while these strategies were used to some extent to manage internet-related difficulties, they were not the sole or primary solution. Learners likely adopted metacognitive strategies of listening such as planning for potential connectivity issues, monitoring their internet connection, or evaluating alternative solutions when disruptions occur.

The low R^2 value (0.061) indicated that only 6.1% of the variance in internet issue difficulties could be explained by the use of metacognitive strategies of listening. This limited explanatory power suggested that other factors were also influencing how learners dealt with internet difficulties. For instance, technical literacy, access to reliable internet infrastructure, and the availability of technical support might play significant roles. Additionally, personal attributes like resilience, problem-solving skills, and the ability to stay calm under pressure could affect how effectively learners managed these difficulties. Moreover, the context in which learners used their internet—such as whether they had a quiet, dedicated space for online learning, or if they were in a shared, noisy environment—could also influence the extent to which metacognitive strategies of listening were employed. Educators and researchers should consider these various factors when designing interventions and support systems to help learners cope with internet-related difficulties. While promoting metacognitive strategies of listening was beneficial, addressing broader infrastructural and contextual issues was also crucial to providing comprehensive support for English major learners.

After presenting the findings for all sub-hypotheses, it was vital to revisit the broader question:

Q2: Is there a significant relationship between listening comprehension difficulties English major learners face and their use of metacognitive strategies of listening to overcome them?

The findings of this study revealed a significant, even though weak to moderate, relationship between the metacognitive strategies of listening usage and listening comprehension difficulties. In detail, English major learners were apt to develop metacognitive strategies of listening repeatedly if they encountered overall listening comprehension difficulties, internet issues, and lack of concentration. These findings implied that English major learners particularly employed metacognitive strategies of listening to manage external and manageable difficulties. On the contrary, the findings revealed no significant relationship for the difficulties related to the listener, speaker, and content, which exposed that metacognitive strategies of listening deemed not to be as compelling or imperative for tackling content-specific or innate issues.

Considering that the Pearson correlations coefficients (r) revealed a significant positive association between the utilization of metacognitive strategies of listening and the overall listening comprehension difficulties, dealing with lack of concentration and internet issues difficulties necessitated the use of metacognitive strategies of listening. These correlations resonated the results of Chen (2010), Coskun (2010), Hamoudeh (2013), Movahed (2014), Rahimirad and Shams (2014), and Rakhman et al. (2019). These scholars underlined the central role of metacognitive strategies of listening in improving listening comprehension because of the scores of experimental groups' posttests. For example, our findings showed no significant correlation between the difficulties of content, speaker, and listener on one hand, and the employment of metacognitive strategies of listening on the other hand. These results were in line with Hamoudeh's (2013) perspective that identified fundamental difficulties inherent in the listening process. These difficulties might not be effortlessly mitigated by the employment of strategies. This emphasized the necessity for a multi-layered approach that integrated metacognitive strategies of listening and addressed the essential complexities of listening comprehension for English major learners.

Metacognitive strategies like imagery, note taking, and skipping were vital for learners to enhance comprehension, stay focused, recall information, and eventually boost their listening performance. Having English language educators recognized the practicality and the efficacy of metacognitive strategies of listening empowered them to support English major learners in evolving effective self-regulated methods to enhance their English listening skills. These results were highlighted in studies by Hamoudeh (2019), Rahimirad and Shams (2014), and Rakhmid (2019). Furthermore, the findings of Rakhman et al. (2019) revealed listening difficulties such as fast speech rates and short-term memory issues. They noticed the decisive role of metacognitive strategies of listening, like note-taking and mental imagery, in aiding learners overcome these difficulties. Similarly, our research supported these interpretations by demonstrating that metacognitive strategies were definitely helpful in tackling listening comprehension difficulties such as those that could be properly controlled by English major learners.

Alternatively, our findings observed that as English major learners faced more difficulties in listening comprehension, they tended to use metacognitive strategies of listening more. This positive significant correlation was not supported by Hamaziandost et al.'s (2019) study that discovered the negative correlation between the English major learners employment of metacognitive strategies of listening and listening comprehension difficulties; i.e., higher use of strategies was linked to fewer difficulties. This disparity could be attributed to the variations in the features of the examined difficulties and/or learning milieus. Among others, our study focused on online context difficulties such as internet issues which were related to the surroundings and technical issues. Namaziandost et al. (2019) instead, studied face-to-face listening learning difficulties like fast speech rates and unfamiliar accents.

The studies of scholars like Bozorgian's (2014), Coskun (2010), Fu et al. (2023), and Rahimirad and Shams (2014) also showed positive significant relationships between English learners' overall performance in listening tests and metacognitive awareness of listening strategies. This demonstrated the alignment between increased metacognitive awareness and improved

listening scores. Moreover, these researchers pinpointed the prominent approach of incorporating metacognitive teaching into classes' activities due to their role in improving learners listening ability and augmenting their overall listening performance. This incorporation would foster the listening learners' awareness of the process and encourage them to employ metacognitive strategies of listening for better achievement. English major learners reported a decrease in stress levels and a boost in confidence when handling listening tasks after receiving instructions on strategies. They gained greater self-assurance and acquired the ability to concentrate effectively during listening activities (Rahimirad & Shams, 2014). Rahimirad and Shams (2014) and Vandergrift et al. (2006) went further to underscore the need for a shift in listening instruction from a product-oriented to a process-oriented approach. They further delved into the interconnectedness and complexity of metacognitive strategies of listening.

Indeed the study's findings revealed that the difficulties of lack of concentration and internet issues were the most critical for English major learners that particularly demanded employment of metacognitive strategies of listening to overcome them. Learners were unable to concentrate, for they looked for answers to questions and listened at the same time. They also lost concentration when trying to think about meaning of new words. Internet issues like poor quality of internet connections added to their lack of concentration. These findings built upon the findings of Linh and Ngo (2021) and Nurani and Widiati (2021). Linh and Ngo (2021) observed that online learning heightened listening comprehension difficulties, attributing this to issues such as internet difficulties, software interference, and difficulties in comprehending listening materials. Furthermore, our findings, like Linh and Ngo's (2021) and Nurani and Widiati's (2021) findings, stressed the central role of metacognitive approaches to alleviate the impact of external environment on learning achievement. Additionally, they stated that learners found it hard to stay focused because of distractions such as web diversions and noise. Other reported difficulties were related to technical issues like power failures, high data usage, and poor internet connections in addition to lesson comprehension, dealing with distorted sounds. These collective indications from these studies emphasized the employment of metacognitive strategies of listening as adaptive means to respond to the various difficulties in online learning settings.

CONCLUSION AND IMPLICATIONS

The outcomes of this research provided scholars and educators with insights about the correlation between metacognitive strategies of listening and the difficulties of listening comprehension. It showed an ample evidence that whenever difficulties of listening comprehension rose, notably internet issues and lack of concentration, the use of metacognitive strategies of listening increased among English major learners. These findings involved that English major learners were prone to alleviate the serious consequences of listening difficulties by employing metacognitive strategies of listening. Thus, the metacognitive strategies might extend considerable support to the English major learners who had problems with concentration. For example, they could set precise goals while listening such as listening for the main idea rather than searching for all details.

In addition, English learners would try to be active listeners by summing up what they have heard or guessing what might come next. This might help them remain engaged and attentive. As for managing distractions, learners could prepare an encouraging study environment. Similarly, they could utilize the metacognitive strategies of listening to deal with internet issues. For instance, they could check for possible connectivity failures or consider alternatives when interruptions happen. These conclusions might serve as guiding indicators for teachers and academics to teach deliberately metacognitive strategies of listening and raise English major learners awareness of the process of listening due to their paramount benefits in improving their listening comprehension. Accordingly, listening content adaptation and tailored instruction could direct teachers to develop the best practices in how to manage and display the listening content in classrooms, and the curriculum designers to include tasks and activities that employ metacognitive strategies of listening.

LIMITATIONS OF THE STUDY

Many factors might affect the generalizability of the findings:

1. Although sample size of 99 participants was satisfactory for spotting correlations, it might not be large enough to generalize the results to the population of English learners.
2. The coefficient of determination (R^2 value) of 0.05 in the model specified that metacognitive strategies of listening only explain 5% of the variance in listening difficulties. This meant that there were other factors (95 %) that have a major role in affecting listening comprehension and should be investigated in future research. These factors might be cognitive such as the memory capacity, linguistic such as structure knowledge, psychological such as motivation and anxiety, and textual such as coherence and cohesion.

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Appendix

1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

Part 1: Problems related to

A- Content		
Item	Statement	Source
1	Complex grammatical structures interfered with my listening comprehension	Adapted from
2	I find it difficult to understand listening texts in which there are too many unfamiliar words including jargon and idioms.	Hamouda, A. (2013).
3	I find it difficult to interpret the meaning of a long spoken text.	
4	I find it difficult to understand listening texts when the topic is unfamiliar.	
5	I find the listening passage difficult to understand.	
B- Listener		
Item	Statement	Source
6	I find it difficult to get a general understanding of the spoken text from the first listening.	Adapted from Hamouda, A. (2013).
7	At the time of listening, I find it difficult to predict what would come next.	
8	I find it difficult to quickly remember words or phrases I have just heard.	
9	I find it difficult to recognize the words I know because of the way they are pronounced.	
C- Speaker		
Item	Statement	Source
10	I find it difficult to understand the natural speech, which is full of hesitation and pauses.	Adapted from Hamouda, A. (2013).
11	I find it difficult to understand the meaning of words, which are not pronounced clearly.	
12	I find it difficult to understand well when speakers speak with a variety of accents.	
13	I find it difficult to understand when speakers speak too fast.	
D- Lack of Concentration		
Item	Statement	Source
13	I am unable to concentrate because I search for the answers, and I listen to the dialogue at the same time.	Adapted from Calub C. and Calub M. (2021)
14	I lose focus of the talk when I have got an expected answer in my mind.	
15	I lose my concentration when I think about the meaning of new words.	
D- Internet Issues		
Item	Statement	Source
16	The nature of the sound I listen to is influenced by the speed of my internet connection.	Adapted from Linh, H. G. and Ngo, T. T. C. (2021)
17	When listening to the lecture, I frequently become disconnected.	
18	I lose my concentration if the recording is in a poor quality.	
19	The speed of the audio is affected by my internet connection.	

Part 2: Metacognitive Strategies

No.	Statement	Source
1	Before I start to listen, I have a plan in my head for how I am going to listen.	Adapted from Vandergrift et al. (2006)
2	I focus harder on the text when I have trouble understanding.	
3	I translate in my head as I listen.	
4	I use the words I understand to guess the meaning of the words I don't understand.	
5	As I listen, I compare what I understand with what I know about the topic.	
6	I use my experience and knowledge to help me understand.	
7	After listening, I think back to how I listened, and about what I might do differently next time.	
8	When I have difficulty understanding what I hear, I give up and stop listening.	
9	I use the general idea of the text to help me guess the meaning of the words that I don't understand.	
10	When I guess the meaning of word, I think back to everything else that I have heard, to see if my guess makes sense.	
11	As I listen, I periodically ask myself if I am satisfied with my level of comprehension.	
12	I have a goal in mind as I listen.	
13	I use any resources to aid myself in my understanding (e.g., dictionaries, diagrams, notes, peers).	
14	I write notes as I follow some spoken text.	