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Original Research

Listening Comprehension Strategies Employed by English-Honours Undergraduate Students at Myitkyina University

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Abstract

This cross-sectional survey investigates listening comprehension strategies that are used by English-honours undergraduate students of Myitkyina University to comprehend their listening texts. We adopted a 5-point Likert-scale questionnaire, "strongly agree" to "strongly disagree," to generate data for this study, and we used descriptive analysis to calculate percentages, means, and standard deviation. The results show that the participants of this study prefer to use socio-affective strategies the most, followed by cognitive and metacognitive strategies. This trend offers valuable insights into why learners resort to bottom-up strategies more frequently than the top-down ones in learning English as a foreign language (EFL).

Keywords: listening comprehension strategies, English-honours, undergraduate students, Myitkyina University

Introduction

During economic integration and globalization, English has become instrumental in communication and a bridge linking global communities. Learning English has also become a basic need for professionals in various fields. With good knowledge of English, we can have many opportunities, including getting good jobs or studying

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abroad. Mastering English is necessary, especially for university students. Among the four basic skills in language learning, most language learners want to be proficient in oral production in any target language learning. For this, they must master speaking skills. In real situations, communication, in other words - speaking, has become one of the problematic parts of language learning. A growing mass of research has suggested that several factors cause failure to achieve the desired proficiency in oral skills. Some of these factors could be the weak school graduates who join universities, inappropriate curricula, faulty teaching methodologies, a non-supportive environment, and lack of motivation on the learners' part (Javid et al., 2012; Pathan, 2013). According to Yavuz and Celik (2017), there is a direct relation between input and output in the teaching-learning process. They stated that listening is an input resource and speaking is an output performance. In light of this claim, we assumed that listening is significant in oral production by establishing a communication background. So, it is imperative to know how the learners are trying to improve their listening skills and what strategies they have primarily used in their listening tests.

Abdalhamid (2012) and Kassem (2015) investigated what listening strategies have been primarily used in ESL learners. According to their results, their study participants have the same pattern of using cognitive strategies the most, followed by metacognitive and socio-affective strategies. However, there is an exciting point in the findings of Dang et al. (2021). Their survey concerns the implementation of listening strategies by English non-major students in Vietnam. It reveals that the socio-affective strategies are employed at the highest end of the frequency scale, followed by metacognitive and cognitive strategies. Therefore, this study aims to determine whether Myanmar students prefer listening comprehension strategies like ESL learners in Western countries or EFL learners in Asia. In this study, we investigate to understand these issues. We seek to answer the following research questions.

- i. What are the self-perceived cognitive listening comprehension strategies (CLCS) used by English-major undergraduate students at Myitkyina, Arts and Science University in Myanmar?
- ii. What are the self-perceived metacognitive listening comprehension strategies (MLCS) used by them?

- iii. What are the self-perceived socio-affective listening comprehension strategies (SLCS) used by them?

Literature Review

Listening skills have been a significant concern for language teaching theoreticians and teachers since it is one of the initial conditions of oral input in the language learning process. For those who assume that second language learning is quite similar to native language acquisition, listening is the primary tool learners use to create their understanding of the target language and acquire input. Rost (2001) argued that a crucial difference between more successful and less successful acquirers of language skills primarily relates to their ability to use listening as a means of language acquisition. Listening comprehension requires the learners to discover meaning supported by several factors, such as linguistic factors, listening strategies factors, and affective factors (Bang & Hiver, 2016). Listening strategies can also influence the students' listening proficiency, which can be very helpful in comprehension.

On the other hand, to be skilled in listening, learners must enhance their linguistic knowledge, apply listening strategies, become confident, and have high motivation in listening activities (Shalawati, 2018). This contestation supports the idea that efficient listeners effectively use listening strategies to understand the texts better and use those strategies (Kassem, 2015). According to Vandergrift (2007), listening comprehension strategies, are the strategies listeners consciously or unconsciously use to understand, analyse, and interpret a text. A review of relevant literature reveals that scholars classify listening strategies into three kinds. They are cognitive (mental activities for manipulating the language to accomplish a task), metacognitive (mental activities for directing language learning), and socio-affective (activities involving interaction or affective control in language learning) (Nowrouzi et al., 2015).

Cognitive Strategies

Cognitive strategies are exploited to understand linguistic input better and have complete data information. To guess the meaning of unknown words from the context is an example of cognitive strategy. Gilakjani and Sabouri (2016) suggested that cognitive strategies help the learners understand the listening texts and store input in short-term memory for immediate use or even keep it in long-term memory for later. In this strategy, understating begins with the reception of listening content by applying the

organization of sounds and words as a decoding process. This kind of strategy is a problem-solving technique language learners use to deal with listening texts and increase their comprehension. Other examples of cognitive strategies are repetition, guessing, memorising, summarising, and piecing together details.

Metacognitive Strategies

We define metacognition as thinking about one's thinking. Vandergrift (2007) posited that advanced listeners use metacognitive strategies twofold compared to elementary listeners. Metacognitive strategies keep learners conscious during listening tasks. Holden (2004) suggested that these strategies facilitate listening comprehension by planning, monitoring, and assessing the information collected related to the listening text as pre-listening activities. A significant benefit of these strategies is the enhanced ability of learners to achieve their attention back if they lose it while listening to the text.

Socio-Affective Strategies

Vandergrift defined socio-affective strategies as those employed by listeners in collaboration with peers and friends to verify comprehension and minimize anxiety to ensure better listening comprehension (as cited in Bidabadi & Yamat, 2011). Bingol et al. (2014) remarked that a 'socio-affective strategy' ensures and promotes positive emotional reactions and perceptions of language learning. An example of socio-affective strategies is choosing or rehearsing a telephone conversation in L2 with another student to develop confidence when completing tasks in the target language (Bingol et al., 2014). Habte-Gabr (2006) also reiterated that these strategies include stimulating learning by building better learning relationships among teachers and learners. Furthermore, it is also important for a learner to know how to reduce anxiety, show enhanced confidence, and maintain high motivation to maximize listening comprehension.

Methods

This cross-sectional study used a survey design. The researcher investigated 35 English-honours undergraduate students by using a quantitative research approach. A Likert scale with a "strongly agree to a strongly disagree" questionnaire was administered to the participants to record their perceived preferences of cognitive,

metacognitive, and socio-affective listening comprehension strategies. The researcher adapted the instrument that Nowrouzi et al. (2015) used for their survey. The researcher sent this questionnaire to three senior English professors for their expert opinions about the appropriateness of the questionnaire's content. The feedback from these experts suggested adding some more listening comprehension strategies. The researcher incorporated the recommended items in the relevant sections of the questionnaire and further validated it by sending it to the same experts. The final version contained 38 items in three subsections. After finalizing the procedural steps to establish the validity and reliability of the instrument, the translated version of both English and Myanmar of the final 38-item questionnaire was administered to the participants of this study. The respondents were requested to complete the survey during their teaching-learning sessions. The data were manually entered, and descriptive statistics in terms of means, standard deviations, and percentages of the responses of the participants of this study regarding the questionnaire items were calculated using version 20 of SPSS. The data generated was tabulated to analyze and discuss with the previous research.

Results

The data generated through the descriptive analyses of students' perceptions towards 38 items of various listening comprehension strategies have been presented in Table 1 below.

Table 1: Descriptive Statistics for Cognitive Strategies (N=35)

S N	Statements on cognitive strategies	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
1	I put new words into a context to understand the meaning.	0	2	0	29	3	3.97	0.57	In practice, it is often applied
2	I make guesses about the topic based on what has already been said.	1	1	4	16	12	4.09	0.92	In practice, it is often applied
3	I listen for the main ideas first and then the details.	0	5	8	10	11	3.79	1.05	In practice, it is often applied
4	I predict or make hypotheses on texts by titles.	0	5	2	24	3	3.74	0.82	In practice, it is often applied
5	While listening, I fix things together from the details.	0	14	9	9	2	2.97	0.95	In practice, it is sometimes applied
6	While listening, I will notice the information questions about who,	0	0	11	21	2	3.74	0.56	In practice, it is sometimes applied

	how, when, where, and what in the content.								
7	I use the tone of voice to guess the meaning of what I hear.	0	4	5	21	4	3.74	0.82	In practice, it is often applied
8	I use body language to guess the meaning of what I hear.	2	12	8	11	1	2.91	1.01	In practice, it is sometimes applied
9	I use the material in the answer sheet (e.g., printed items, choices, and pictures) to guess the meaning of what I hear.	2	2	9	19	2	3.50	0.92	In practice, it is sometimes applied
10	I practice sounds in the target language that are very different from sounds in my own language to become comfortable with them.	2	7	3	20	2	3.38	1.06	In practice, it is sometimes applied
11	I listen to the radio in the target language.	0	16	4	13	1	2.97	0.98	In practice, it is sometimes applied
12	I watch English programs on TV.	0	11	4	16	3	3.32	1.02	In practice, it is sometimes applied
13	I prefer to talk to foreigners in English.	0	4	9	17	4	3.62	0.84	In practice, it is often applied
14	While listening, I make a written summary of the main points.	2	13	3	13	3	3.06	1.16	In practice, it is sometimes applied
15	I make a mental summary of information presented in a listening task.	1	9	10	11	3	3.18	1.01	In practice, it is sometimes applied
16	I take notes of the main points and keywords.	0	3	7	17	7	3.82	0.86	In practice, it is often applied
17	I watch movies in the target language.	0	0	3	17	14	4.32	0.63	In practice, it is always applied
	Average	0.6	6.4	5.8	16.7	4.5	3.54	1.00	In practice, it is often applied

NOTES:

1.00-1.80= In practice, it is never applied

1.81-2.60= In practice, it is sometimes applied

2.61-3.40= In practice, it is sometimes applied

3.41-4.20= In practice, it is often applied

4.21-5.00= In practice, it is always applied

Table 1 presents the mean values for cognitive strategies, one of the listening comprehension strategies investigated in this study. The information in Table 1

indicates that most learners watch movies in the target language to improve their listening skills. A high mean of 4.32 has been recorded for this reason. Secondly, most learners prefer to guess the topic based on what has already been said while listening. The value of mean 4.09 has been illustrated for this reason. The mean value of 3.97 indicates that some learners put new words into context to understand the meaning. The value of the mean, 2.91, showed that very few learners use body language to guess the meaning of what they hear.

Table 2: Descriptive Statistics for Metacognitive Strategies (N=35)

S N	Statements on metacognitive strategies	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
18	I have a plan in my mind before listening.	4	17	8	5	0	2.41	0.88	In practice, it is sometimes applied
19	I prepare for talks and performances I will hear in the target language by reading some background materials beforehand.	3	18	8	5	0	2.44	0.85	In practice, it is sometimes applied
20	I decide to focus on the topic and ignore the distracters, such as people and things around me.	0	5	7	19	3	3.59	0.84	In practice, it is often applied
21	I try to listen for specific details to see whether I can understand them.	0	1	0	26	7	4.15	0.55	In practice, it is often applied
22	I listen for keywords.	1	3	6	19	5	3.71	0.92	In practice, it is often applied
23	I try to understand what I hear without translating it word-for-word.	0	2	2	23	7	4.03	0.71	In practice, it is often applied
24	I use my experience and knowledge to help me understand.	3	1	8	17	5	3.59	1.06	In practice, it is often applied
25	I try to keep up with the speed.	2	3	11	14	4	3.44	1.01	In practice, it is often applied
26	I try to compare the developing interpretation with my knowledge of the topic.	2	4	7	18	3	3.47	1.01	In practice, it is often applied
27	I quickly adjust my interpretation during listening if I realize that it is not correct.	0	3	6	22	3	3.74	0.74	In practice, it is often applied
28	I Think back to	0	3	5	24	2	3.74	0.70	In practice,

	everything I heard to verify the meaningfulness of guessed words.								it is often applied
29	As I listen, I sometimes ask myself if I am satisfied with my comprehension.	0	3	7	15	9	3.88	0.90	In practice, it is often applied
30	After listening, I think back to how I listened and about what I might do differently next time.	0	3	10	18	3	3.62	0.77	In practice, it is often applied
31	After listening, I think back to the quality of my strategy use (for example planning, inferencing) and about how I can do better next time.	0	3	10	18	3	3.62	0.77	In practice, it is often applied
32	I prepare a list of my problems and try to solve them before my next listening.	0	5	7	18	4	3.62	0.87	In practice, it is often applied
	Average	1.0	4.9	6.8	17.4	3.9	3.54	0.97	In practice, it is often applied

NOTES:

1.00-1.80= In practice, it is never applied

1.81-2.60= In practice, it is sometimes applied

2.61-3.40= In practice, it is sometimes applied

3.41-4.20= In practice, it is often applied

4.21-5.00= In practice, it is always applied

Table 2 shows the different values of the mean for metacognitive strategies. The mean value of 4.15 shows that most learners try to listen for specific details to see whether they can understand the topic. In practice, they often apply it. The mean value of 4.03 was recorded to show why they also try to understand what they hear without translating it word-for-word. On the other hand, the mean value of 3.88 shows that some learners ask themselves if they are satisfied with their comprehension while they are listening. The lowest mean value of 2.41 describes learners having a mental plan before listening.

Table 3: Descriptive Statistics for Socio-Affective Strategies (N=35)

SN	Statements on socio-effective strategies	Responses					Calculation		Interpretation
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD	
33	I ask others for feedback on how to solve my listening problems.	1	9	5	17	2	3.29	1.02	In practice, it is sometimes applied
34	I attend out-of-class events like conferences where the new language is spoken.	5	20	5	3	1	2.26	0.92	In practice, it is rarely applied
35	I imitate the way native speakers talk.	2	5	1	17	9	3.76	1.16	In practice, it is often applied
36	I encourage myself to listen more even when I am afraid of problems in understanding.	0	4	8	12	10	3.82	0.98	In practice, it is often applied
37	I reward myself or treat when I improve in listening.	0	3	16	15	0	3.35	0.64	In practice, it is sometimes applied
38	I hope teachers can teach me more skills to improve my listening comprehension.	0	0	0	7	27	4.79	0.40	In practice, it is always applied
Average		1.3	6.8	5.8	11.8	8.2	3.55	1.17	In practice, it is often applied

NOTES:

1.00-1.80= In practice, it is never applied

1.81-2.60= In practice, it is rarely applied

2.61-3.40= In practice, it is sometimes applied

3.41-4.20= In practice, it is often applied

4.21-5.00= In practice, it is always applied

In Table 3, the high mean value of 4.79 highlights the learners' hope. They all hope teachers can teach them more skills to improve their listening comprehension.

Secondly, the mean value of 3.82 indicates that most learners encourage themselves to listen more even when they are afraid of a problem in understanding. On the other hand, some of them imitate how native speakers talk. The value of mean 3.76 has been

recorded for this reason. After that, the lowest mean value of 2.26 represents that very few learners attend out-of-class events like conferences where scholars speak a new language.

Table 4: Descriptive Statistics for Listening Strategies

SN	Listening strategies	Calculation		Interpretation
		Mean	SD	
1	Cognitive strategies	3.54	1.00	In practice, it is often applied
2	Metacognitive strategies	3.54	0.97	In practice, it is often applied
3	Socio-affective strategies	3.55	1.17	In practice, it is often applied
	Average	3.54	1.02	In practice, it is often applied

NOTES:

1.00-1.80= In practice, it is never applied

1.81-2.60= In practice, it is sometimes applied

2.61-3.40= In practice, it is sometimes applied

3.41-4.20= In practice, it is often applied

4.21-5.00= In practice, it is always applied

Table 4 details the cumulative mean values for three listening comprehension strategies investigated in this study. The descriptive analysis informs that the participants of this study prefer to use socio-affective strategies the most, followed by cognitive and metacognitive strategies. A high mean of 3.55 has been recorded for SLCS with (SD=1.17) indicating narrow inter-rater differences. Similarly, the mean value assigned to CLCS has been (3.54) with the least SD of only (1.00). Metacognitive strategies were reported to be used the least by this group, with a mean value of (3.54).

Discussion

A view of relevant literature has been used to support the findings of this survey study. Abdalhamid (2012) investigated listening comprehension strategies used by advanced and intermediate Arab ESL learners and found that both groups have the highest preference for cognitive strategies. Metacognitive strategies have been ranked next to cognitive strategies, whereas socio-affective strategies have been given the least

preference. However, the findings are completely different from the results of the study in hand: Myanmar students prefer to use socio-affective strategies.

On the other hand, the findings of Kassem (2015) have stated that Egyptian male and female sophomores have also exhibited the same pattern of using cognitive strategies the most, followed by metacognitive and socio-affective strategies. Here, students of Myanmar prefer to use socio-affective strategies. The highest use of SLCS might be because of their emotional preferences and admiration for their teachers. This study result is similar to Dang et al.'s (2021) survey. Therefore, we assume that EFL learners in Asian countries prefer to use socio-affective strategies. This may be because of their cultural background, which gives full respect to their teachers. They rely on the full support and guidance of their teachers.

According to the information about implementing cognitive strategies in this study, we assume the participants have good exposure to the target language. Watching movies in the target language is the best way to imitate the various features of that language, such as vocabulary, grammar, intonation, ways of speaking, and so on. It can improve not only the learners' listening skill but also their speaking skills. Therefore, it is necessary to support and persuade them to be able to use cognitive strategies in their listening tests and language learning processes.

On the other hand, according to the information about implementing metacognitive strategies in this study, it is necessary to train the students to listen to the main theme of the whole topic at first, without translating word-for-word in detail. Here, the learners try to listen for specific details at first. If they are not advanced learners, they cannot follow the speedy flow of native speakers.

Finally, according to the information about implementing socio-affective strategies in this study, we assume that the teacher is a role model for the learners. The learners believe their teacher can teach them to improve their listening skills. Therefore, it is necessary to give them much exposure to the target language and encourage them without frightening them of problems and difficulties in their tests. Attending conferences where the target language is spoken can give many benefits to the learners of that language. Here, just a few learners are interested in attending like this. So, it is necessary to encourage and arrange for them to attend conferences.

The results of this study also state that the learners also ask others for feedback on solving their listening problems. This is peer learning. According to Vandergrift, listeners employ socio-affective strategies through collaboration with peers and friends to verify comprehension and minimize anxiety to ensure better listening comprehension (as cited in Dang et al., 2021). Moreover, Gilakjani (2011) has also claimed that these strategies include stimulating learning by building better learning relationships among teachers and learners. Furthermore, it is also essential for the learner to know how to reduce anxiety, show enhanced confidence, and maintain high motivation to maximize listening comprehension. Therefore, we assume that the participants of this study may apply better listening skills.

Conclusion

This empirical study reveals that EFL learners, as represented by the survey participants, prefer to use socio-affecting strategies the most, followed by cognitive and metacognitive strategies. This trend offers valuable insights into why EFL learners resort to bottom-up strategies more frequently than top-down ones. The lowest preference for metacognitive strategies entails that teachers, especially the ones who train EFL learners, should emphasize these strategies more in listening skills courses in order to avoid affective problems such as low self-esteem, nervousness, anxiety, low motivation, embarrassment, etc., which hinder listeners' affective performance (Amin et al., 2011). The study further reveals that listening comprehension is a difficult skill as it includes complex processing of listeners' background knowledge and linguistic skills in addition to its feature of the uncontrollable speed of delivery by a speaker. Therefore, it is imperative to make the learners aware of the significance of these strategies to enhance their listening comprehension. This awareness enables English language teachers to equip the learners with appropriate listening skills, retrospect on the listening process, and concentrate on practicing cognitive and metacognitive strategies during their listening tasks. The teachers must enhance their students' top-down cognitive processing skills during listening skills classes. It will also be instrumental in improving the listening comprehension of the EFL learners if the teachers highlight the background of the listening contents, thus helping their students to activate content schemata, enabling them to connect the listening content with their personal experiences.

The study implies that teachers can give their students the confidence and courage to talk about their listening problems and the strategies they have to use to solve them. A candid discussion and sharing of their successes and failures will also help the EFL learners choose appropriate and suitable strategies. It is also crucial that teachers encourage their students to share their feedback with their classmates to help minimize problems and enhance the possibility of improved listening comprehension.

Disclosure

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References

- Abdalhamid, F. (2012). *Listening comprehension strategies of Arabic-speaking ESL learners* [Unpublished master's thesis]. Colorado State University.
- Amin, I. A.-R., Aly, M. A.-S., & Amin, M. M. (2011). *A correlation study between EFL strategic listening and listening comprehension skills among secondary school students*. <https://files.eric.ed.gov/fulltext/ED527448.pdf>
- Bang, S., & Hiver, P. (2016). Investigating the structural relationships of cognitive and affective domains for L2 listening. *Asian-Pacific Journal of Second and Foreign Language Education*, 1(7). <https://doi.org/10.1186/s40862-016-0013-8>
- Bidabadi, F., & Yamat, H. (2011). The relationship between listening strategies used by Iranian EFL freshman university students and their listening proficiency levels. *English Language Teaching*, 4(1), 26-32.
- Bingol, M. A., Celik, B., Yildiz, N., & Mart, C. T. (2014). Listening comprehension difficulties encountered by students in second language learning class. *Journal of Educational and Instructional Studies in the World*, 4(4), Art. 01.
- Dang, H. T., Van Au, B., & Chau, H. T. (2021). *A study of English listening strategies applied by English non-majored students at Tay Do University, Vietnam*. <https://doi.org/10.46827/ejel.v6i3.3653>
- Gilakjani, A. P. (2011). A study of factors affecting EFL learners' English listening comprehension and the strategies for improvement. *Journal of Language Teaching and Research*, 2(5). <https://doi.org/10.4304/jltr.2.5.977-988>

- Gilakjani, A. P., & Sabouri, N. B. (2016). Learners' listening comprehension difficulties in English language learning: A literature review. *English Language Teaching*, 9(6). <https://doi.org/10.5539/elt.v9n6p123>
- Habte-Gabr, E. (2006). The importance of socio-affective strategies in Using EFL for teaching mainstream subjects. *Journal of Humanizing Language Teaching*, 8(5).
- Holden, W. R. (2004). Facilitating listening comprehension: Acquiring successful strategies. *Bulletin of Hokuriku University*, 28, 257-266.
- Javid, C. Z., Farooq, U., & Gulzar, M. A. (2012). Saudi English-major undergraduates and English teachers' perceptions regarding effective ELT in the KSA: A comparative study. *European Journal of Scientific Research*, 85(1), 55-70.
- Kassem, H. M. (2015). The relationship between listening strategies used by Egyptian EFL college sophomores and their listening comprehension and self-efficacy. *English Language Teaching*, 8(2), 153-169.
- Nowrouzi, S., Tam, S. S., Zareian, G., & Nimehchisalem, V. (2015). Iranian EFL students' listening comprehension problems. *Theory and Practice in Language Studies*, 5(2), 263-269. <http://dx.doi.org/10.17507/tpls.0502.05>
- Pathan, A. K. (2013). Major linguistic barriers of oral communication in English as perceived by the tertiary level ESL students. *Languages in India*, 13(3), 395-406.
- Rost, M. (2001). *Teaching and researching listening*. Longman.
- Shalawati, S. H. (2018). Listening comprehension strategies applied by English language learners. *ELT-Lectura: Jurnal Pendidikan*, 5(1).
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching*, 40, 191-210. <https://doi.org/10.1017/S0261444807004338>
- Yavuz, F., & Celik, O. (2017). The importance of listening in communication. *Global Journal of Psychology Research New Trends and Issues*, 7(1), 8-11. <https://doi.org/10.18844/gjpr.v7i1.2431>

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