Bull. Grad. School Educ. Hiroshima Univ., Part Ⅱ, No. 67, 2018, 125－133

Exploring the Relationship that Listening Performance has with Bottom-Up Skills and Metacognitive Awareness

Kriss A. Lange
(Received. October 4, 2018)

Abstract: Listening ability is a fundamental skill for L2 language development but not enough is known about the factors which contribute most to its development. This study attempted to demonstrate the correlation between listening performance and bottom-up skills as well as the correlation between listening performance and metacognitive awareness. A comprehensive English course with 54 Japanese first-year university students participated in the study. Listening performance data was collected using the EIKEN Pre2 listening section, bottom-up skill data was collected using the Clear Listening Diagnostic Test and metacognitive awareness data was obtained with the Metacognitive Awareness Listening Questionnaire. Results showed that the ability to correctly transcribe de-emphasized function words had a moderately strong correlation (r = 0.50) with listening performance. Also, a weak to moderate correlation (r = 0.31) was found between metacognitive awareness and listening performance. Questionnaire data revealed which strategies skilled and less-skilled listeners reported using most with implications for listening development.

Key words: listening comprehension, bottom-up skills, metacognitive awareness, correlational study

1. Introduction

Listening comprehension is an essential skill which can be particularly difficult to develop for Japanese EFL learners. Understanding which factors contribute most to successful listening could help to guide listening pedagogy and help learners make more progress in their listening development. Various factors that are thought to contribute to listening skills have been investigated, such as: L2 word recognition in connected speech (Matthews & Cheng, 2015), L2 vocabulary knowledge (Bonk, 2000; Mecartty, 2000), linguistic processing speed (Andringa et al., 2012), working memory capacity (Kromos & Safar, 2008), speed of delivery (Graham, 2006), bottom-up skills (Yeldham, 2016) and awareness of metacognitive strategies (Vandergrift, Goh, Mareschal & Tafaghodtari, 2006). Other factors, such as the grammatical complexity of the input or the listener's ability to understand and process grammar, are also some of the many factors which contribute to listening ability. Although these elements have been investigated, their relative degree of importance for listening has been underemphasized.

This paper, as a part of the author's doctoral dissertation, has been examined by the following reviewers. Reviewers: Kazuaki Tsuido (chief academic advisor), Seiji Fukazawa, Yosuke Yanase and Keiso Tatsukawa (Institute for Foreign Language Research and Education)

This study investigates the relative contributions that two such factors, bottom-up skills and metacognitive awareness, have on listening performance as measured by a test of listening comprehension. Bottom-up skills were selected for analysis because they are a fundamentally important element of L2 listening comprehension. In demonstration of this, the ability to dictate reduced forms, such as contraction, elision, and assimilation in connected speech can correlate strongly (r = 0.63) with listening comprehension (Wong, et al., 2017). Despite the importance of bottom-up skills to L2 listening, they have received little attention. Metacognitive awareness was selected as a factor for analysis because it has also been shown to correlate significantly (r = 0.23) with L2 listening comprehension (Vandergrift & Baker, 2015). Strategies instruction, which helps develop metacognitive awareness, also improved listening comprehension ability in experimental studies (Vandergrift & Tafaghodtari, 2010). Although both bottom-up skills and metacognitive awareness are contributing factors to listening development, studies comparing each factor's strength of association with listening performance are limited.

2. Factors to be Investigated

2.1 Bottom-Up Skills

This study defines bottom-up processing according to Yeldham (2017), "Bottom-up processing requires the phonological abilities to distinguish and identify the meaning attached to different sounds, particularly of segmental and intonation cues, and the ability to recognize words in the stream of speech" (p.15). Bottom-up skills refer to the ability to effectively use bottom-up processing for accessing crucial linguistic information and meaning from the speech signal. Bottom-up skills are closely associated with decoding ability. Decoding involves the process of perceiving phonemes in the speech input, identifying word boundaries (i.e. segmentation), recognizing the words, interpreting syntactical meaning (i.e. parsing) and understanding the literal meaning of the input (Field, 2008a). Bottom-up skills, which are fundamental to successful listening ability, are utilized when decoding.

2.2 Metacognitive Awareness

Metacognition broadly refers to thinking about thinking. It is comprised of the ability to understand and regulate cognitive processes and is thought to play an important role in listening (Vandergrift & Goh, 2012). Using think-aloud methodology (tapping the thought processes of listeners while listening), research has found that skilled listeners use more metacognitive strategies than less-skilled listeners (Vandergrift, 2003). Metacognitive awareness was found to be a significant predictor accounting for 13% of variance in listening scores in a study by Vandergrift et al. (2006) with 966 participants.

3. The Aim of this Study

This correlational study aims to investigate the degree to which L2 learners' bottom-up listening skills and metacognitive awareness are associated with listening performance. It attempts to develop a more detailed understanding of the challenges these learners face and inform pedagogy by indicating the level of influence each of these factors has on listening performance.

3.1 Research Questions

The current study examined the following three questions:

1) What is the correlational relationship between bottom-up skills and listening performance?
2) What is the correlational relationship between metacognitive awareness and listening performance?
3) Which listening strategies do learners report using more or less?

4. Methods

4.1 Participants

Fifty-four Japanese first-year university students who were enrolled in the author's comprehensive English course participated in this study. The students had various levels of listening ability and experience with English. The highest EIKEN grades passed by the students are as follows: Grade 2: 13 students, Grade Pre2: 4 students, Grade 3: 5 students, Grade 4: 5 students, Grade 5: 1 student. In total, 27 students had taken an EIKEN test and 27 students reported never having taken one.

4.2 Instruments

4.2.1 EIKEN Pre2 Test

The listening section of the Pre2 level EIKEN test was used as the measure of listening performance in this study. The EIKEN test was developed by the Eiken Foundation of Japan and is widely utilized in Japan. Unlike other popular English proficiency tests, such as the TOEIC, the EIKEN is divided into seven levels of difficulty. Grade 1, the highest level, corresponds to C1 proficiency on the CEFR scale and an approximate score of 100 on the TOEFL iBT (600 on the paper-based test). The lowest EIKEN level test is Grade 5 indicating a low, A1 level on the CEFR scale. A previous version of the EIKEN Pre-2 Grade listening section was used in this study based on the author's assessment of the students' general English ability. This level corresponds to roughly an A2 level on the CEFR and a 20 on the TOEFL iBT (350 on the paper-based test) (Eiken Foundation of Japan, 2016). The listening section, which took about 20 minutes to complete, consisted of three parts, each of which had 10 multiple-choice questions. In the first part, the examinee hears a short conversation and chooses the best response from three recorded options. In the second part, the examinee hears a longer conversation and chooses the best answer to written questions about what was said. The third section consists of answering written questions about monologues.

4.2.2 Clear Listening Diagnostic Test (CLDT)

The Clear Listening Diagnostic Test (CLDT) is included in the teacher's manual for the pronunciation and listening instruction textbook *Clear Speech* (Gilbert, 2012). The test was chosen because it was designed to measure various bottom-up processing skills. Yeldham (2016) utilized an earlier version of Gilbert's test known as the "Clear Speech Test" for bottom up skill assessment and suggests Gilbert's diagnostic test as "a standalone resource for researching participants' bottom-up skills" (Yeldham, 2017, p. 15). There are seven parts in the test and each part has 10 items. Five sections were chosen from the test to measure the following skills: 1) identifying vowel minimal pairs in sentences, 2) identifying consonant minimal pairs in sentences, 3) identifying the number of syllables of words heard in isolation, 4) identifying the most emphasized word in sentences within a conversation, and 5) the ability to decode and transcribe two de-emphasized words missing from partially completed sentences (i.e. partial dictation).

4.2.3 Listening Questionnaire

The Metacognitive Awareness Listening Questionnaire (MALQ) was designed to evaluate learners' perceived use of listening strategies as well as their perceptions of themselves as L2 learners (Vandergrift et al., 2006). The original English MALQ was designed for native English speakers learning French. A Japanese translation, which was adapted for native Japanese speakers learning English, is provided by Watanabe (2008). This Japanese version of the MALQ was used for the current study and is provided for reference in the Appendix. The questionnaire contained 21 statements describing various listening comprehension strategies. Respondents were asked to rate their level of agreement with each statement on a scale of 1-6. For example, "I translate key words as I listen." is one of the items included in the questionnaire. The listening strategies are grouped into five subscales: directed attention; mental translation; planning and evaluation; problem solving; and person knowledge.

The first four subscales contain items representative of successful listening strategies. For instance, the listening strategies contained in the directed attention subscale assess the ability to maintain focus on the listening task. The respondent's degree of confidence in their listening ability is assessed in the fifth subscale, person knowledge, and is not considered a listening strategy.

Regarding items in the mental translation subscale, higher responses are considered to indicate use of unsuccessful listening strategies (i.e. mental translation while listening) by the questionnaire designers. Vandergrift claims that online mental translation strategies reflect inefficient approaches to listening comprehension and that less-skilled listeners report using these strategies more than skilled listeners (Vandergrift, 2003; Vandergrift et al. 2006). However, other studies have been unable to demonstrate a significant correlation between responses on the MALQ mental translation subscale and listening comprehension (Goh & Hu, 2014; Wang & Treffers-Daller, 2017). Therefore, whether utilizing mental translation strategies while listening has a negative effect on listening comprehension is still unclear.

According to the authors, the MALQ should be administered shortly after the learners have completed an authentic listening task, "so that they would have a specific task on which to base their responses" (Vandergrift et al., 2006, p. 441). In this study the MALQ was administered after completing a paused transcription listening activity. It should also be noted that a drawback to the MALQ, as pointed out by Vandergrift and Baker (2015), is that the questionnaire does not assess actual metacognitive awareness, only self-reported awareness.

4.3 Procedure

Each of the assessments was administered during normal class periods over three consecutive weeks and took less than two hours in total. No listening instruction, review of the assessments or listening strategy instruction was provided to the participants by the researcher. However, many of the participants took a listening course, taught by another professor, for first-year students which included detailed explanations of bottom-up skills, metacognitive strategies and dictation practice in particular.

5. Results

5.1 Listening Performance

Participants' listening ability was assessed by their scores on the 30 multiple choice items from a 2009 version of the EIKEN Pre2 listening section. The students (N = 54) had varying levels of English listening ability with scores ranging between 11 and 29 out of 30 points; and a mean of 19.13 (*SD* = 4.43). The data was normally distributed with acceptable levels of skewness and kurtosis.

5.2 Bottom- Up Listening Skills Assessment

The results from five sections of the CLDT are presented in Table 2. Each part had 10 questions and was worth ten points.

Table 1. *Correlations Between CLDT Parts and EIKEN Pre2*

CLDT Test section (ability measured)	*M*	*SD*	*r*
Part 1 (vowel discrimination)	7.44	1.22	0.11
Part 2 (consonant discrimination)	8.29	1.79	0.19
Part 3 (identify the number of syllables in words)	4.35	2.28	0.02
Part 5 (identify the stressed word in sentences)	6.61	2.31	0.22
Part 6 (partial dictation for de-emphasized words)	3.10	2.11	0.50(*)
Total (five sections, 50 points)	2.98	5.06	0.36

Note. *$p < .001$

The Cronbach's Alpha for the CLDT was 0.29 indicating very low internal consistency in the test. This is to be expected because although each part measures bottom-up skills, the skills and tasks vary greatly from minimal pair identification tasks to partial dictation. Therefore, the four test sections investigated in this study were each analyzed independently. Of the 5 sections analyzed, only Part 6 "De-emphasizing with contraction and reductions" produced a moderately strong correlation (r (52) =0.50, $p < .001$) with the EIKEN listening scores.

5.3 Metacognitive Awareness Assessment

The Cronbach's alpha was calculated for all 21 items in the MALQ questionnaire as well as for each of the five subscales to demonstrate internal consistency. They are listed as follows: 0.75 for directed attention; 0.51 for mental translation; 0.68 for planning and evaluation; 0.84 for problem solving; 0.40 for person knowledge; and 0.77 for all of the items indicating overall acceptable internal reliability for the test according to Field (2013). The low internal consistency for the subscale person knowledge may indicate that questions 3, 8 and 15, which assess perceived difficulty or anxiety in regards to English skills, do not associate strongly with each other. For instance, high responses to question 8 "English listening is difficult" do not necessarily mean question 15 "I don't feel anxiety when listening" would also receive high responses. Questions designed to measure feelings of difficulty or anxiety would naturally vary by individual and would not be expected to have strong internal reliability. The small number of items included in the computation also produces smaller scores for the Cronbach's alpha.

High responses to questions 3 and 8 meant that the respondents perceived the task in question as difficult (negative response) and low scores meant it was easier (positive response). These two items were reverse coded (along with item 16) to match the rest of the questions in which high scores indicate positive responses for use of listening strategies and low scores, negative ones.

In Table 2, the MALQ question items belonging to each subscale are listed to show the relationships between each subscale and listening performance. The average of the responses for all of the items in each subscale is listed along with the standard deviation and correlations between listening performance measures and average responses to subscale items.

Table 2. *Correlations Between MALQ Subscales and EIKEN Pre2*

MALQ subscales	MALQ items	*M*	*SD*	*r*
Directed attention	2, 6, 12, 16	4.27	0.77	0.12
Mental translation	4, 11, 18	3.91	0.81	0.12
Planning & evaluation	1, 10, 14, 20, 21	3.20	0.79	0.23
Problem solving	5, 7, 9, 13, 17, 19	3.73	0.86	0.23
Person knowledge	3, 8, 15	2.77	1.33	0.20

Note. * $p < .05$

In Table 3, all 21 of the items are ranked in order of their average response scores to provide a more detailed view of the relationship of individual MALQ questions and listening performance. The subscale that each item belongs to, the mean value, standard deviation and the Pearson's r correlation with the EIKEN Pre2 grade scores are included in the table.

Table 3. *MALQ Items Ranked by Average Score Including Correlations with EIKEN Pre2*

Order	Item	Subscale	*M*	*SD*	*r*
1	2	Directed attention	4.63	1.0	0.08
2	12	Directed attention	4.52	1.1	0.21
3	4	Mental translation	4.39	1.3	0.11

4	6	Directed attention	4.26	1.0	0.13
5	11	Mental translation	4.22	1.2	0.07
6	9	Problem solving	4.04	1.1	-0.04
7	17	Problem solving	3.83	1.2	0.35(**)
8	5	Problem solving	3.81	1.2	0.30(*)
9	1	Planning and evaluation	3.67	1.2	0.28(*)
10	16	Directed attention	3.67	1.1	-0.06
11	7	Problem solving	3.65	1.2	0.09
12	13	Problem solving	3.61	1.1	0.14
13	19	Problem solving	3.44	1.1	0.21
14	20	Planning and evaluation	3.26	1.1	0.17
15	14	Planning and evaluation	3.19	1.2	0.18
16	15	Person knowledge	3.19	1.3	0.03
17	21	Planning and evaluation	3.13	1.1	0.004
18	18	Mental translation	3.11	1.1	0.06
19	10	Planning and evaluation	2.78	1.3	0.15
20	8	Person knowledge	2.57	2.9	0.13
21	3	Person knowledge	2.57	1.2	0.27(*)

Note. N=54 * $p < .05$, ** $p < .01$

The MALQ items which had significant correlations with listening performance were as follows: Item 17, "I use the general idea of the text to help me guess the meaning of the words that I don't understand." ($r = 0.35$), Item 5, "I use the words I understand to guess the meaning of the words I don't understand." ($r = 0.30$), Item 1, "Before I start to listen, I have a plan in my head for how I am going to listen." ($r = 0.28$), and Item 3, "I find that listening is more difficult than reading, speaking, or writing in English. ($r = 0.27$).

6. Conclusions and Implications

RQ1) What is the correlational relationship between bottom-up listening skills and listening performance?

In order to answer research question 1, correlations between the CLDT and the EIKEN Pre2 listening section were analyzed. The ability to identify vowel and consonant minimal pairs in sentences measured in Part 1 and 2 of the CLDT had weak correlations with listening performance of 0.11 and 0.19 respectively. Part 3, which measured the ability to identify the number of syllables in words, also showed virtually no correlation with the EIKEN ($r = 0.02$). Likewise, a weak correlation ($r = 0.22$) was found for Part 5, in which students identified the most stressed word in each sentence. These correlations did not reach the $p = 0.05$ significance level. However, a moderately strong and significant correlation of $r = 0.50$ was found for Part 6, which asked students to dictate de-emphasized words in connected speech. This part was also the lowest scoring section of the test indicating that it is one of the most challenging bottom-up skills for this cohort. Scores for Part 6 were normally distributed with no significant kurtosis or skew. The de-emphasized words in Part 6 are also known as function words and are normally reduced in connected speech but they contain important syntactical meaning. Studies measuring L2 listener ability to decode function words have demonstrated that

they are considerably more difficult to perceive in connected speech than content words (Field, 2008b; Lange, 2018). This moderately strong correlation demonstrated a significant relationship between the ability to decode de-emphasized words in connected speech and listening performance, whereas the other bottom-up listening skills only had a weak relationship in this study. The ability to perceive and transcribe the missing words for the partial dictation in Part 6 may have been associated with listening performance because it demonstrated perception of function words which convey grammatical meaning as well as the ability to produce those words in writing. The learner who poorly perceives de-emphasized function words must rely more on the content words (i.e. nouns and verbs), without having an adequate understanding of their syntactical relationships, to determine the meaning of the aural input. This suggests that helping learners develop their function word recognition in connected speech may be an effective bottom-up skill to develop for improved listening performance.

RQ2) What is the correlational relationship between metacognitive awareness and listening performance?

This study attempted to answer research question 2 by measuring the correlation between responses on the MALQ and EIKEN scores. A weak to moderate correlation (r (52) = 0.31, $p < .05$) was found between the two variables. These results suggest that self-reported listening strategy use (metacognitive awareness) had a moderate relationship with actual listening performance for this cohort. The correlation obtained in this study, $r = 0.31$, is similar to those reported by Vandergrift et al. (2006) $r = 0.36$, Goh & Hu (2014) $r = 0.44$, and Vandergrift & Baker (2015) $r = 0.23$, for listening comprehension and MALQ results. Generalizing from these results, metacognitive awareness and listening performance may be only moderately associated. This suggests that although strategy instruction is helpful, the limited time available for listening instruction may be more effectively spent on developing linguistic skills such as aural word recognition (i.e. partial dictation) which have been shown to correlate strongly ($r = 0.73$) with listening performance (Matthews & Cheng, 2015).

RQ3) Which listening strategies do learners report using more or less?

Analysis of the subscales in the MALQ indicate that responses for the *directed attention* subscale were higher than for other categories. However, correlations between items in this subscale and listening performance were among the lowest on the MALQ. Self-reported measures of the degree to which participants focused on the listening input were not associated with better listening performance in this analysis. Participants also reported little use of *planning/evaluation* and *problem solving* suggesting they may not be aware of effective listening strategies or tend to rely on more effort rather than better strategy. Comparatively, it is interesting to note the weak to moderate, but significant correlation of $r = 0.30$ and $r = 0.35$ with listening performance for two items in the *problem-solving* subscale (items 17 and 5) which asks respondents to rate their utilization of context. These results suggest that the learners' conscious use of the context to aid in comprehension may be associated more with listening performance than other types of strategies.

In the subscale *mental translation*, students report often translating key words (item 11) and mentally translating while listening (item 4) but not trying to translate each word (item 18). Learners who rely on mental translation may be diverting some of their cognitive resources to translation while listening and not focusing their full attention on the input. More fluent decoding ability could help learners focus more of their cognitive capacities on decoding, meaning building and global comprehension rather than mental translation.

This study explored the relationship that two listener characteristics, bottom-up listening skills and metacognitive awareness, have with listening ability. It found that only one of the bottom-up listening skills tested, partial dictation of de-emphasized words, had a moderate and significant

correlation with listening performance as measured by the listening section of the EIKEN Pre2 test. Also, a weak to moderate correlation was found between listening performance and responses to the MALQ, reflecting the moderate but significant relationship metacognitive awareness is thought to have with listening ability. In addition, results from the MALQ suggest more successful learners utilize context with problem-solving strategies as well as planning and evaluation, whereas less successful learners tend to rely more on strategies such as directed attention and mental translation. However, the correlational nature of this study can only suggest relationships between listening performance and bottom-up skills or listening strategies. Qualitative research using control groups could help to demonstrate a causal relationship between bottom-up skills, metacognitive awareness and listening performance. Qualitative studies which can reveal more about the thought processes of learners while listening would also be valuable. An important pedagogical implication we can draw from this study is that helping students improve their ability to dictate de-emphasized function words in connected speech could have positive effects on their listening performance.

7. References

Andringa, S., Olsthoorn, N., Van Beuningen, C., Schoonen, R., & Hulstijn, J. (2012). Determinants of success in native and non-native listening comprehension: An individual differences approach. *Language Learning*, ***62***, 49-78.

Bonk, W. (2000). Second language lexical knowledge and listening comprehension. *International Journal of Listening*, ***14***, 14-31.

Eiken Foundation of Japan. (2016). *Comparison table*. Retrieved June 23, 2018, from http://www.eiken.or.jp/eiken/en/research/comparison-table.html.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Los Angeles etc: Sage.

Field, J. (2008a). *Listening in the language classroom*. Cambridge: Cambridge University Press.

Field, J. (2008b). Bricks or mortar: Which part of the input does a second language listener rely on? *TESOL Quarterly*, ***42***(3), 411-432.

Gilbert, J. (2012). *Clear speech: Pronunciation and listening comprehension in North American English* (4th ed.). New York, NY: Cambridge University Press.

Goh, C. C. M., & Hu, G. (2014). Exploring the relationship between metacognitive awareness and listening performance with questionnaire data. *Language Awareness*, ***23***(3), 255-275.

Graham, S. (2006). Listening comprehension: The learners' perspective. *System*, ***34***, 165-182.

Kormos, J., & Safar, A. (2008). Phonological short term-memory, working memory and foreign language performance in intensive language learning. *Bilingualism: Language and Cognition*, ***11***, 261–271.

Lange, K. A. (2018). Analyzing difficulties in aural word recognition for Japanese English learners: Identifying function words in connected speech. *CASELE Research Bulletin*, ***48***. 63-74.

Matthews, J., & Cheng, J. (2015). Recognition of high frequency words from speech as a predictor of L2 listening comprehension. *System*, ***52***, 1-13.

Mecartty, F. (2000). Lexical and Grammatical Knowledge in Reading and Listening Comprehension by Foreign Language Learners of Spanish. *Applied Language Learning*, ***11***, 323-348.

Vandergrift, L. (2003). Orchestrating strategy use: Toward a model of the skilled second language listener. *Language Learning*, ***53***(3), 463-496.

Vandergrift, L., & Baker, S. (2015). Learner variables in second language listening comprehension: An exploratory path analysis. *Language Learning*, ***65***, 390-416.

Vandergrift, L., & Goh, C. C. M. (2012). *Teaching and learning second language listening*. New York, NY: Routledge.

Vandergrift, L., Goh, C. C. M., Mareschal, C., & Tafaghodtari, M. H. (2006). The metacognitive awareness

listening questionnaire (MALQ): Development and validation. *Language Learning*, ***56***, 431–462.
Vandergrift, L., & Tafaghodtari, M.H. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language Learning*. ***60***(2), 470-497.
Wang, Y., & Treffers-Daller, J. (2017). Explaining listening comprehension among L2 learners of English: The contribution of general language proficiency, vocabulary knowledge and metacognitive knowledge. *System*, ***65***, 139-150.
Watanabe, S. (2008). Kyoushi ga suisoku suru koukousei no risuninngucyu no ishiki/houryaku shiyou to jittai to no hikaku [Comparing teachers' perceptions of high school students' awareness and strategy use while listening with the students' actual responses]". *Step Bulletin*, ***20***, 224-232.
Wong, S. W. L., Mok, P. P. K., Chung, K. K., Leung, V. W. H., Bishop, D. V. M., & Chow, B. W. (2015). Perception of native English reduced forms in Chinese learners: Its role in listening comprehension and its phonological correlates. *TESOL Quarterly*. ***51***(1), 7-31.
Yeldham, M. (2016). Second language listening instruction: Comparing a strategies-based approach with an interactive, strategies/bottom-up skills approach. *TESOL Quarterly*, ***50***(2), 394-420.
Yeldham, M. (2017). Techniques for researching L2 listeners. *System*, ***66***, 13-26.

Appendix

Metacognitive Awareness Listening Questionnaire (MALQ) – Japanese version (Watanabe, 2008)
自己のリスニング認知度についての調査

以下のそれぞれの記述について，自分の英語リスニングに最も当てはまる番号（１全く当てはまらない，２当てはまらない，３あまり当てはまらない，４少し当てはまる，５当てはまる，６とても当てはまる）に○をつけてください。

1	計画 / 評価	聞く前に，どんなふうに聞こうかと考える。
2	集中	わからないときには，よりいっそう音声テキストに集中する。
3	自己認識	英語リスニングは，英語で「読む」「書く」「話す」ことよりも難しい。
4	翻訳	聞きながら頭の中で訳していく。
5	問題解決	わかった単語から，わからない単語を推測する。
6	集中	ぼんやりしてしまったら，すぐに集中しなおす。
7	問題解決	聞いていてわかったことを，すでに自分が知っていることを照らし合わせてみる。
8	自己認識	英語リスニングは自分には難しい。
9	問題解決	自分の経験や知識を理解に役立てる。
10	計画 / 評価	聞く前に，それまでに聞いたことがあるよく似た音声テキストを思い浮かべる。
11	翻訳	聞きながらキーワードを訳す。
12	集中	集中が途切れたら，再度，集中しなおそうとする。
13	問題解決	聞いているとき，自分の解釈が合ってないとわかれば，すぐに修正する。
14	計画 / 評価	聞き終わってから，自分がどんなふうに聞いたかを振り返り，次にやろうと思う聞き方を考える。
15	自己認識	英語を聞いていても緊張はしない。
16	集中	内容が理解できないときは，あきらめて聞くのをやめてしまう。
17	問題解決	わからない単語の意味を推測するために，音声テキストの概要（あらすじ）を利用する。
18	翻訳	聞きながら一語一語を訳す。
19	問題解決	単語の意味を推測するとき，自分の推測で合っているかどうかを確かめるために，それまで聞いたことを振り返る。
20	計画 / 評価	聞きながら，何度か自分の理解度を確認する。
21	計画 / 評価	聞いているとき，心の中に何らかの目標を持っている。

※実際の質問紙にカテゴリーは載せていない。