

The Metacognitive Learning Instruction (MLI) for Teaching Listening During the Pandemic: Pros and Cons

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Abstract. The purpose of this study is to describe the Metacognitive Learning Instruction (MLI) online classroom application along with its advantages and challenges, which teachers may consider so that they can prepare detailed planning before teaching. This study is part of more extensive experimental research, which is done to study the students' listening achievements and their factors. This paper also presents statistical data analyzing the effect of the MLI on students' listening proficiency. To explain the advantages and disadvantages of using the instruction, the researchers analyze the students' self-evaluation questionnaires and the instructor's self-reflection questionnaire. Furthermore, this research is carried out to discover the effectiveness of MLI for teaching listening. Paired Sample T-test is performed to test the hypothesis. The test is required to prepare a comparison analysis between pre-test and post-test scores of the same groups. From the paired t-test sample, the researchers report a significant difference between the pre and post-test data. It indicates that the students' listening proficiency increases significantly. Online learning by adopting MLI within blended Synchronous and Asynchronous learning enable students to access the learning materials, ask questions, and practice their skills at any time that works for them. However, teachers need to closely monitor the students' learning progress to assist the students to become independent learners and efficiently use the time allocation to finish the task on time.

Key words: metacognitive learning; listening; advantages; disadvantages; and online learning.

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INTRODUCTION

The COVID-19 pandemic has caused the transformation of education systems at all levels all over the world. This condition allowed massive changes in the teaching-learning environment called the e-learning system. Most classrooms worldwide are closed, and suddenly, educators have to modify their face-to-face academic practices. This situation showed the strengths and weaknesses of education systems facing the challenge of digitalization (Valverde-Berrocoso et al., 2020). Before the pandemic, most scholars and educators use blended offline-online learning. However, nowadays, all schools and universities are transmitted to fully online classes in which all learning and teaching activities are carried online. (Farrah & Hatem Al-Bakry, 2020; Zboun & Farrah, 2021)

Indonesia is one of many countries which try out the implementation of EFL online classes. The application of online classes was decided nationwide in Indonesia since the education policymakers decided to apply a rule to change the offline classes into online classes in mid-March 2020. This decision was taken following the Covid-19 outbreak. This pandemic forced the education ministry to propose online classes for schools and universities. However, some

problems are encountered by students, teachers, and parents in managing and monitoring the learning processes. Teachers' problems immersed because of low mastery of IT and limited access to supervision towards students. Students' problems are in the form of inactivity in following learning, limited supporting facilities, and internet network access. The problem of parents is in the form of limited time in assisting and monitoring their children during online learning. (Efriana, 2021; Hendrawaty et al., 2021; Nartiningrum & Nugroho, 2020)

Although the implementation of online courses encounters many technical problems, Indonesian educators and institutions are responsible for providing a qualified language education system based on the national curriculum and the students' needs. Designing and developing the language learning materials should be the primary concern because the educators need to consider e-learning exercises that are quickly assessed and offer flexibility for the student to do the tasks.

One of the aims of EFL learning is to improve the learners' language skills. To learn a language means to be able to use the language to communicate. Therefore language skills are the primary concern in EFL learning. In EFL learning, listening is a fundamental skill to

introduce students to speaking skills. Listening is the first communication process in which students get the language input as the learning process begins (Nunan, 2001; Richard, 2008; Solak, 2016). Although many e-language listening materials are available online, educators need to carefully select the materials to fit the learners' needs and achieve the learning subject's purpose.

As part of EFL learning in the English Education Department (EED) of *Universitas Muria Kudus*, listening activities are given in three different semesters with some learning orientations. The students need to understand and respond to some listening material served in many contexts during listening activities. In this listening process, the students will listen to English use for daily communication informal and informal context of the situation. This is documented in the document of *Kurikulum KKN Prodi Pendidikan Bahasa Inggris Universitas Muria Kudus (UMK) Tahun 2019*. The listening materials are chosen, and the teaching method should refer to the purposes of the course. The student's achievements are measured base on the learning indicators.

To find the appropriate methods of e-EFL language, the language instructors try to apply several methods and techniques of teaching and evaluating them to find the best way of delivering the materials and gain the best result for the students learning improvement. Therefore, in this research, the writer intended to do an experiment that concerns applying metacognitive learning instruction for listening in the online learning environment. In this research, teachers design and develop a listening module to meet the purpose of the learning. The module implements the metacognitive instruction in step-by-step listening processes. The e-learning mode uses Synchronous and asynchronous learning by utilizing a zoom video communication app, Whatsapp app, and Google forms software.

Metacognitive instruction is given through the listening module adopting the principles of metacognition. Metacognitive instruction is the teaching instruction used by the teacher to manage teaching and learning in class. This teaching instruction involved Metacognition, or "thinking about one's thinking." It is the ability to exert control over cognitive processes through self-reflection and self-correction. It is a higher-order executive function that involves filtering, monitoring, analyzing, planning, problem-solving, and decision-making. It also enables active control over the cognitive processes

engaged in attention, adaptation, learning, and memory. (Anderson, 2002; Brown, 1978; Flavell, 1979; C. Goh, 2008)

Teaching and researching listening by adopting metacognitive strategies have been done, and researchers have reported the strategy's effectiveness in improving students listening ability. By assisting and monitoring students' listening behavior during the learning process, metacognitive learning effectively develops the students' independence in solving their problems during the listening process. Metacognitive learning strategy is confirmed to have positive impacts on students listening comprehension (Bozorgian, 2014; A. Lye & Goh, 2017; S. E. Lye & Goh, 2018; Mansoor & Ebrahim, 2014; Mulyadi, 2018; Rahimi & Katal, 2012; Ranjbar & Heidar, 2016; Tanewong, 2019).

Bozorgian (2014) conducted research. After receiving a guided lesson plan in metacognition (planning, monitoring, and evaluation), it reported learners' listening improvement. Results indicated that the students improved their listening skills after being taught about metacognition. Lye (2017) compared the use of two instruction models to teach metacognitive strategies in L2 listening; the Metacognitive Pedagogical Sequence (MPS) and the Cognitive Academic Language Learning Approach (CALLA). Posttest results show that listening comprehension performance using both models improved significantly compared to their pre-test scores. However, when comparing between MPS and CALLA, there was no significant difference between their post-test improvements. Mansoor & Ebrahim (2014) observed the effect of metacognitive instruction on students' listening performance. The study results showed that metacognitive instruction led to considerable variance in the overall listening performance of learners. The results also revealed that the model of metacognitive instruction and the manner through which metacognitive strategies were orchestrated led to a difference in the listening performance of EFL learners in this study. Ranjbar & Heidar (2016) compare two different metacognitive instructions. The linear strategy instruction of metacognitive (Planning, monitoring, evaluation) and Metacognitive Pedagogical Sequence (Larry Vandergrift & Goh, 2012). According to the study's findings, metacognitive strategy instruction led to a significant improvement in the overall listening performance of the learners in both groups. That is, no significant difference was found between

the two groups of male and female learners. Moreover, it was shown that the Metacognitive Pedagogical Sequence and how metacognitive strategies were presented according to this model led to a significantly higher listening performance of EFL learners who participated in the study.

For learners to become more effective L2 listeners of English, they must explore and attain the following aspects of metacognitive knowledge. (Larry Vandergrift & Goh, 2012)

1. Person knowledge is knowledge of the self as a learner in the L2. No learner is the same, and these individual differences are bound to affect the learning processes. This knowledge allows the learner to adapt and choose

strategies that will benefit them in the long term.

2. Task knowledge is knowledge of the task presented and the objectives, Whether the task requires true or false answers, detailed or short answers, or identifying keywords.
3. Strategy knowledge is knowledge of different strategies available to achieve the purpose of that particular task in question.

The sequences of the metacognitive instruction used in this research are developed based on Anderson (2002), Goh (2008), and Vandergrift & Goh (2012) (Anderson, 2002; C. Goh, 2008; Larry Vandergrift & Goh, 2012).

Table 1. Metacognitive (MC) Pedagogical Model

MC Strategy	How is this implemented	MC knowledge
Preparing and planning	The teacher sets the objective for the task and helps students plan to reach these objectives.	Task knowledge
Selecting and using strategies	The teacher explicitly shows the students what strategies they can use to achieve the objective.	Person knowledge Task knowledge Strategy knowledge
Monitoring use of strategies	Once students have chosen the strategies, they need to monitor them and see if they are using them as intended.	Task knowledge Strategy knowledge
Making use of several strategies	Making use of several strategies simultaneously	Task knowledge Strategy knowledge
Evaluating strategy use and learning	At the end of the task, students should reflect on the entire process by asking the following questions: What am I trying to accomplish? What strategies am I using? How well am I using them? What else could I do?	Task knowledge Strategy knowledge Person knowledge

Source: Anderson (2002)

This study is experimental research with one group pre-test and post-test only. The research aims to determine the effectiveness of the Metacognitive Learning Instruction (MLI) to improve learners' listening achievement during e-EFL learning and to find out the advantages and challenges of Metacognitive Learning Instruction (MLI) in e-EFL learning.

METHOD

This study adopts an experimental research design with one assigned intervention group divided into two classes (Class C and D), receiving metacognitive instruction training in an online learning environment (n=17+26); the group received 16 meetings 90-minute each session of strategy instruction which is spread for four months using the various listening training audio materials. Before treatment, a listening pre-test was administered for a baseline reading of the

participants' listening proficiency levels before intervention. Their listening proficiency levels were categorized based on the listening review exercise provided in Longman Complete Course Book (2001).

The total participants in this research are 43 male and female participants, aged between 18-21 years old. These are English Education students studying at a university college in Kudus, Indonesia. Metacognitive strategy instruction was provided during regular classroom lessons of the Intensive Listening course.

The listening pre-test and post-test are multiple-choice listening test questions taken from the book Longman Complete Course for the TOEFL Test (2001). the test consists of authentic TOEFL (Test of English as Foreign Language) examination papers prepared by Longman for TOEFL is widely recognized as a good

assessment of language ability. The listening test consists of four sections, with a total of 40 questions. As each correct question is scored one mark, the test's highest and lowest possible score is '40' and '0'.

Data analysis was calculated using SPSS (Version 25.0). The listening pre-test scores were first subjected to exploratory data analysis before the treatment. Data was subsequently subjected to parametric test analysis of paired-samples T-test to confirm if there were significant differences between the pre-test and post-test scores of the groups. To discover the advantages and challenges of using MLI in the e-language learning context, the writer uses an open-ended survey to gain the students' and instructors' perceptions of the learning activities.

RESULT AND DISCUSSION

In conducting this research, the writer did a pre-test before giving the group intervention using metacognitive Learning Instruction and administering the post-test after the intervention. The listening module was given to students in treatment groups to familiarize students with the process of metacognitive learning instruction. The sequences of the lesson are described as the following.

1. Planning

In this session, the instructor sets the objective of the listening task. The teacher introduces the topic by questioning, giving clues: pictures or keywords. The teacher asks students to write their prior knowledge on learning English effectively based on their experience. Teachers motivate the students to practice listening by giving engaging activities.

2. Strategy application and Monitoring System

Before first listening, the teacher plays the video without sound, and then students can make predictions based on the situation in the video.

In the first listening session, students check their lists of predictions, which is the correct one, which is the incorrect one. The teacher controls the students listening strategy and leads them to find a better strategy by identifying the problems they encounter during the first listening (problem-based strategy application). Students prepare themselves for the second listening by identifying the information they need to focus on to complete their first listening.

In a second listening session, the teacher prepares some questions to leads the students into the detailed information from the text. Students complete the listening task as they listen to the

text for the second time. Students are allowed to note any problems their encounter during the listening.

3. Evaluating strategy use and learning achievement

In this session, the teacher may play the video with the subtitle or introduce the transcript as a bottom-up strategy that allows students to formulate sound word connections. Students can make verification on the evaluation task given in the second listening. This also allows students to double-check the problems from the first and second listening. Students are encouraged to think of the overall success of their listening and what they should do in the following listening section. This aims to assist the students in doing reflection on their listening process.

The reconstruction listening activities used for lessons were as prescribed in Anderson (2002), Goh (2008), and Vandergrift & Goh (2012). (Anderson, 2002; C. Goh, 2008; Larry Vandergrift & Goh, 2012)

The Intensive Listening course is designed to develop students' listening skills such as distinguish sounds, words, intonation, sentence structure, and other components of spoken language and word choice. Those skills can help students to comprehend the meaning and describe detailed information in a text. The focus of this course is to assist learners in recognizing the language forms and grasp the whole meaning and information. Intensive Listening learning activities focus on oral texts commonly used in everyday contexts, both in formal and informal situations, news, announcement, narrative, recounts, and descriptive. Those are delivered in the audio listening exercise.

The primary data to study the effectiveness of MLI were gathered by administering the pre and post-test with 40 multiple choice test items adopted from TOEFL listening review exercise. The result of the pre and post-test is presented in table 2.

Table 2. Descriptive Statistics

Statistics		Pre Test	Post Test
N	Valid	43	43
	Missing	0	0
Mean		22.6512	28.3256
Median		24.0000	31.0000
Mode		35.00	37.00
Std. Deviation		10.33921	9.64049
Variance		106.899	92.939
Minimum		4.00	6.00
Maximum		38.00	40.00

The result of the pre-test shows that the mean score is 24 and the modes score is 35. It indicates that there is a considerable gap in the learners' listening comprehension. The result of the post-tests shows the Standard Deviation of the pre and post-test decrease by 1 point. High standard deviation indicates data are more spread out. It indicates that the data are not clustered around the mean; therefore, the students' listening proficiency varies from very low to very high. Standard deviation (SD) is used to measure variability used in statistics. Standard deviation indicates the fluctuation of the variables around their mean. A low SD indicates that the learners' scores tend to be close to the mean, whereas a high SD indicates that the scores are spread out over an extensive range of values. (Lee et al., 2015)

The subjects of the research are second-semester students. It means that this is their second listening subject; therefore, it is reasonable when their proficiency is not at the same level. This might be their first listening experience guided by particular learning instruction. They need to possess some vital vocabulary and improve their listening ability in recognizing the language form. It is also a challenging experience for them to do listening exercises by face-to-face online learning. The high listening capability gap between learners is the result of the characteristics of English students, which resulted from the students' academic performance. However, if we observe the histogram below, after the intervention over 14 meetings applying MLI, the students' listening gradually increases and shows significant development. It can be concluded that e-EFL learning using MLI indeed has a positive influence on students' listening comprehension.

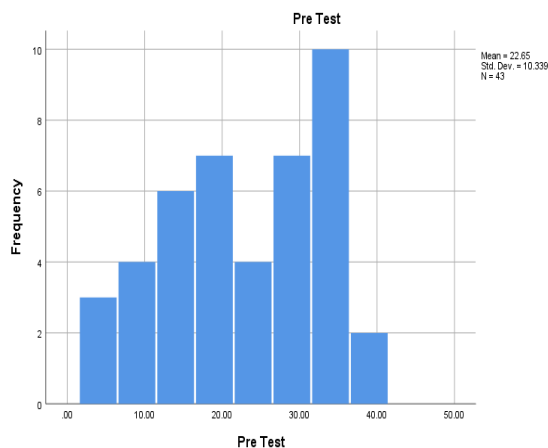


Figure 1. Pre-Test Score Frequency

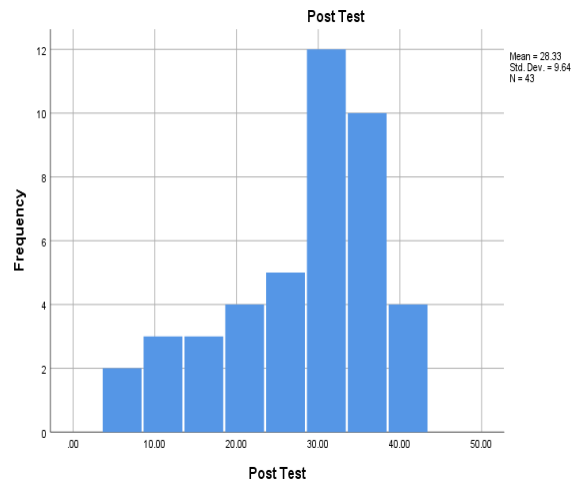


Figure 2. Post-Test Score Frequency

Paired Sample T-test was used to answer the first research question. Those questions required the researcher to do a comparative analysis between the same groups' pre-test and the post-test of the same groups.

The hypothesis of this research is:

- H₀: Metacognitive Learning Instruction (MLI) in the online learning environment is not practical for improving EFL learners' listening comprehension.
- H_a: Metacognitive Learning Instruction (MLI) in the online learning environment effectively improves EFL learners' listening comprehension.

To decide whether the metacognitive Learning Instruction (MLI) in e-EFL learning results in significant improvement in the listening comprehension performance of English Education Department students of *Universitas Muria Kudus (UMK)*. The criterion used to determine the result of statistical analysis for these problem statements is that if the significance value (p-value) is higher than α (level of significance) = 0.05, H₀ is accepted. On the other hand, if the significance value (p-value) is lower than α (level of significance) = 0.05, H₀ is rejected.

Table 3. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	22.6512	43	10.33921	1.57671
	Post Test	28.3256	43	9.64049	1.47016

Table 4. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Test & Post Test	43	.708	.000

The paired sample t-test shows the significant

value $.000 < .05$. Because the p. value of sig. is lower than 0.05, the research confirms a significant correlation between the students' listening ability before and after the intervention. A significant linear relationship (correlation) between the learners' listening comprehension before and after the intervention is confirmed.

Table 5. Paired Sample Test

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tiled)
					Lower	Upper			
Pair 1	Pre Test- Post Test	-5.67442	7.65544	1.16744	-8.03042	-3.31842	-4.861	42	.000

The writer uses a t-test and computes a t-statistic of 4.862, with a p-value of 0.000. Because we use a 0.05 cutoff for the p-value, we reject the null hypothesis and conclude a statistically significant difference between groups. Because the p. value of sig. is lower than 0.05, the research confirms a significant difference in the students' listening ability before and after the treatment. Therefore the H_0 is rejected, but H_a is confirmed.

To gain more data about the application of MLI during online learning, the writer uses open-ended questionnaires to gather the learners' and instructors' perceptions during the learning intervention. This survey was the evaluation of the guided implementation of metacognition as a language learning strategy. This evaluation is intended to find the positive influence of metacognition and the challenge faced by students and instructor during the lesson sequence.

The MLI listening class was guided and managed by a female instructor with almost ten years of experience in teaching English. Based on the semi open-ended interview, the MLI class instructor assumes that:

1. In the planning session, MLI facilitates the teacher to set the objective before the task, helps students to understand the learning objectives, and helps students to prepare themselves before listening. This session allows the instructor to teach smoothly and effectively from the very beginning of the class until it ends because she knows exactly what and how to teach. She can also make use the time efficiently as long as she sticks to the planning. However, in the learning session, students might respond and raise some issues out of the topic, and as an instructor, she needs

to be flexible; therefore, the planning session takes more time.

2. In the selecting and using strategy session, MLI facilitates the instructor to assist the students in using some listening strategies. The students should use appropriate strategies to do the listening task and to achieve the learning objectives. The advantage is that she can find the appropriate strategies that suit the students' needs to do the tasks. However, it takes time to prepare and find the best strategy to use, especially meeting the students' conditions and situations. Therefore, she assumes that to do more research both on the students' condition and situation, to find the appropriate strategies to do the tasks is highly needed.
3. Students choose the strategies in the monitoring use of strategy session, and the instructor needs to monitor their strategy and see if they use them as intended. The instructor thinks that metacognitive learning Instruction facilitates her to review the listening task and review the effectiveness of the students' listening strategy. The monitoring session gives her the chance to figure out the difficulties faced by the students during the learning activities and then give them solutions and pieces of advice to do better in the following tasks. However, some students feel reluctant to express what they feel and what makes them unable to do the tasks well. The students need more encouragement to make them more open and expressive.
4. In the Evaluating strategy use and learning session, the instructor thinks that the students have a chance to effectively self-reflect by questioning their strategy and plan what to do next. The evaluating session also gives her more information on the students' condition

during their learning and the difficulties they face during tasks completion. However, they need to be actively sharing their problems and make attempts to the best solution.

All the benefits of using metacognitive instruction for listening comprehension have been approved by many scholars through rigorous research and continuously improve and enriched by applying in many aspects. (Bozorgian, 2014; Dole, 2021; Liu, 2020; Zhangand & Goh, 2006)

The writer also attempts to gain the learners' perspective during the online learning environment in this research. From the 44 respondents, the writer finds out that although there are some benefits that they can get from the learning instruction, some of them also encounter some problems and challenges. The writer categorized the problems and challenged to two main points. The problem is due to the application of instruction and the e-language learning system.

From the learners' perspectives, they find the lesson more engaging because it offers an opportunity to evaluate their learning and direct assistance from the instructor. Previously, they found online learning ineffective because they did not receive feedback and guided instruction to choose a listening strategy and evaluate their achievement during the listening practice. The students need to learn listening strategies because listening comprehension is not naturally achieved. Learners need to have some knowledge about strategies and how to use them appropriately. This kind of acknowledgment needs to be trained and practiced. Sometimes, online learning with an asynchronous e-learning approach minimizes face-to-face interaction emerged (Papadima-Sophocleous & Loizides, 2016). Therefore, an equal combination of synchronous and asynchronous online learning is the best solution for managing the lesson during the pandemic.

If learners were given a chance to choose between online and offline learning, they would prefer the offline mode. Learners think that zoom face-to-face communication makes them lost interest because sometimes their internet connection did not support the direct video conference. The low internet bandwidth influences the quality of the video and sound. The fact that the poor internet connection has become the biggest problem in implementing e-learning in Indonesia was already identified from the beginning of the e-learning policy implemented. Apart from the technical problems, learners'

negative behavior shows that they are not ready. However, in this pandemic situation, we have no better alternatives except online learning. These facts are also supported by some research that examines the implementation of online learning in Indonesia (Nartiningrum & Nugroho, 2020; Nugraha et al., 2018). They stated that the study results indicated that the e-learning program to teach Indonesian as a foreign language needs to be improved in some dimensions. The findings revealed that improvements in the physical conditions, e-learning artifacts, e-learning objects, technology, interface design, and evaluation dimensions of the e-learning program were required to make the program more effective.

CONCLUSION

After conducting the paired sample t-test of the pre and post-test listening comprehension, the writer found that the statistical p. value is 0.000. Because the p. value of sig. is lower than 0.05, the research confirms a significant difference in the students' listening comprehension before and after the treatment. Therefore the H_0 is rejected, but H_a is confirmed. The MLI application during the e-learning situation has positive influences on the students' listening comprehension. This fact gives solid evidence that the English Education Department of *UMK* can benefit from online learning when the instructor applies metacognitive instruction.

From the instructor's perspective, MLI gives many benefits both for the instructor and learners. They have clear ideas on how the lesson will be carried out during the meeting. The assessable listening module helps the learners to do the tasks in a precise sequence of action. The planning session, the strategy use, monitoring system, and the evaluation system encourage learners' independence in practicing listening. However, sometimes students feel they need an engaging, interactive activity that gives them a joyful learning atmosphere. In conclusion, they miss offline learning as it allowed them to directly interact with friends and instructors and do some social activities.

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REFERENCES

- Anderson, N. J. (2002). The role of metacognition in second language teaching and learning. *ERIC Digest*. <https://locn.pw/5y.pdf>
- Bozorgian, H. (2014). The Role of Metacognition in the Development of EFL Learners' Listening Skill. *International Journal of Listening*, 28(3), 149–161. <https://doi.org/10.1080/10904018.2013.861303>
- Brown, A. L. (1978). Knowing when, where, and how to remember: A problem of metacognition. In R. Glaser (Ed.), *Advances in Instructional Psychology* (1st ed., Vol. 1, pp. 77–165). Lawrence Erlbaum.
- Dole, J. (2021). Cognitive Strategy Instruction. *Handbook of Research on Reading Comprehension, January 2009*, 371–396. <https://doi.org/10.4324/9781315759609-29>
- Efriana, L. (2021). Problems of Online Learning during Covid-19 Pandemic in EFL Classroom and the Solution. *JELITA: Journal of English Language Teaching and Literature*, 2(1), 38–47.
- Farrah, M., & Hatem Al-Bakry, G. ' (2020). Online learning for EFL students in Palestinian universities during corona pandemic: advantages, challenges and solutions. *Indonesian Journal of Learning and Instruction*, 3(2), 65–78. <https://journal.uniku.ac.id/index.php/IJLI>
- Flavell, J. H. (1979). Metacognition and Cognitive Monitoring: A New Area of Cognitive-Developmental Inquiry. *American Psychologist*, 34(10), 906–911.
- Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELC Journal*, 39(2), 188–213. <https://doi.org/10.1177/0033688208092184>
- Goh, C. C. M. (1998). How ESL learners with different listening abilities use comprehension strategies and tactics. *Language Teaching Research*, 2(2), 124–147. <https://doi.org/10.1177/136216889800200203>
- Hendrawaty, N., Angkarini, T., & Retnomurti, A. B. (2021). EFL Undergraduate Students' Perceptions of Online Learning Applications during the COVID-19 Outbreak. *Jurnal Pendidikan Dan Pengajaran*, 54(1), 110. <https://doi.org/10.23887/jpp.v54i1.31763>
- Lee, D. K., In, J., & Lee, S. (2015). Standard deviation and standard error of the mean. *Korean Journal of Anesthesiology*, 68(3), 220–223. <https://doi.org/10.4097/kjae.2015.68.3.220>
- Liu, Y. (2020). Effects of metacognitive strategy training on Chinese listening comprehension. *Languages*, 5(2), 1–22. <https://doi.org/10.3390/languages5020021>
- Lye, A., & Goh, L. H. (2017). *Metacognitive Strategy Instruction and IELTS Listening. March*.
- Lye, S. E., & Goh, L. H. (2018). Embedded and Direct Metacognitive Strategy Instruction and its Effects on the Metacognitive Awareness of Tertiary Level Malaysian ESL Listeners. *International Journal of English Language and Translation Studies*, 05(04), 172–180.
- Mansoor, F., & Ebrahim, F. A. (2014). Exploring the effect of the model of metacognitive instruction on the listening performance of EFL learners. *International Journal of Research Studies in Language Learning*, 3(6), 3–20.
- Mulyadi, D. (2018). Enhancing Students' Listening Proficiency through the Instruction of (Meta)-Cognitive Listening Strategy. *Getsempena English Education Journal (GEEJ)*, 5(2), 168–176. <https://doi.org/10.1088/1751-8113/44/8/085201>
- Nartiningrum, N., & Nugroho, A. (2020). Online Learning amidst Global Pandemic: EFL Students' Challenges, Suggestions, and Needed Materials. *ENGLISH FRANCA: Academic Journal of English Language and Education*, 4(2), 115. <https://doi.org/10.29240/ef.v4i2.1494>
- Nugraha, S. T., Suwandi, S., Nurkamto, J., & Saddhono, K. (2018). *Evaluation of E-Learning in Indonesian as a Foreign Language. January*, 481–486. <https://doi.org/10.5220/0007169604810486>
- Nunan, D. (2001). New ways in teaching listening. *The Journal of TESOL France*. http://soda.ustadistancia.edu.co/enlinea/SandraMilenaRodriguez_Listening/the_nature_of_listening_nunan_2001.html
- Papadima-Sophocleous, S., & Loizides, F. (2016). Exploring the benefits and disadvantages of introducing synchronous to asynchronous online technologies to facilitate flexibility in learning. *CALL Communities and Culture – Short Papers from EUROCALL 2016, 2016(2016)*, 363–368. <https://doi.org/10.14705/rpnet.2016.eurocall2016.589>

- Rahimi, M., & Katal, M. (2012). Metacognitive strategies awareness and success in learning English as a foreign language: An overview. *Procedia - Social and Behavioral Sciences*, 31(2011), 73–81. <https://doi.org/10.1016/j.sbspro.2011.12.019>
- Ranjbar, S., & Heidar, M. H. (2016). *Metacognitive Strategy Instruction and EFL learners' Listening Comprehension Ability: A Tale of Two Genders*. 5(1), 37–54.
- Richard, J. C. (2008). Teaching Listening and Speaking From Theory to Practice. In *Richards-Teaching-Listening-Speaking*.
- Solak, E. (2016). Book Review: Teaching Language Skills for Prospective English Teachers. *Sakarya University Journal of Education*, 6(3), 232–234. <https://doi.org/10.19126/suje.282235>
- Tanewong, S. (2019). Metacognitive Pedagogical Sequence for Less-Proficient Thai EFL Listeners: A Comparative Investigation. *RELC Journal*, 50(1), 86–103. <https://doi.org/10.1177/0033688218754942>
- Valverde-Berrococo, J., del Carmen Garrido-Arroyo, M., Burgos-Videla, C., & Morales-Cevallos, M. B. (2020). Trends in educational research about e-Learning: A systematic literature review (2009-2018). *Sustainability (Switzerland)*, 12(12). <https://doi.org/10.3390/su12125153>
- Vandergrift, L., & Goh, C. C. M. (2014). Teaching and Learning Second Language Listening: Metacognition in Action. *Applied Linguistics*, 35(2), 224–226. <https://doi.org/10.1093/applin/amu002>
- Vandergrift, Larry, & Goh, C. C. M. (2012). Teaching and learning second language listening: Metacognition in action. In *Teaching and Learning Second Language Listening: Metacognition in Action* (Issue January). Routledge. <https://doi.org/10.4324/9780203843376>
- Zboun, J. S., & Farrah, M. (2021). Students' perspectives of online language learning during corona pandemic: Benefits and challenges. *Indonesian EFL Journal*, 7(1), 13–20. <https://doi.org/10.25134/ieflj.v7i1.3986>
- Zhangand, D., & Goh, C. C. M. (2006). Strategy knowledge and perceived strategy use: Singaporean students' awareness of listening and speaking strategies. *Language Awareness*, 15(3), 199–119. <https://doi.org/10.2167/la342.0>