Ishel
International Seminar on Humanity, Education, and Language
Universitas Negeri Jakarta | Online Conference |
eISSN 3124-9396
Volume 2 , July 2026

IMPLEMENTING MICROLEARNING IN JAPANESE SPEAKING CLASSES TO ENCHANCE STUDENTS' SELF REGULATED LEARNING AND SPEAKING PROFICIENCY

Ayu Putri Seruni[1], Ninuk Lustyantie[2], Nuruddin[3]
University of Jakarta[123]
Email: ayu_9906925005@mhs.unj.ac.id[1], ninuk.lustyantie@unj.ac.id[2], nuruddin.unj@unj.ac.id[3]

ABSTRACT
This study aims to examine changes in Japanese speaking proficiency and Self-Regulated Learning (SRL) among university students following microlearning-based instruction. A quantitative approach employing a pre-experimental one-group pretest–posttest design was conducted with 14 students enrolled in a Japanese Language Education program. The intervention lasted four weeks and integrated short instructional videos, focused speaking tasks, repeated practice, self-reflection, and formative assessments. Data were collected using speaking proficiency tests and SRL questionnaires administered before and after the intervention. The data were analyzed using descriptive statistics, Shapiro–Wilk normality tests, paired-samples t-tests, and effect size calculations. The findings revealed significant improvements in speaking proficiency, with mean scores increasing from 63.07 to 80.29 ($p < 0.001$; Cohen's $d^z = 2.95$), and in SRL, with mean scores increasing from 75.36 to 92.50 ($p < 0.001$; Cohen's $d^z = 2.75$). These findings provide preliminary evidence supporting the integration of microlearning, speaking practice, and learner self-regulation in Japanese language education. The study contributes to foreign language pedagogy in Indonesian higher education by informing the development of flexible, reflective, and learner-centered instructional strategies. However, the absence of a control group limits causal interpretation.

Keywords: *microlearning; Japanese speaking proficiency; self-regulated learning; japanese language education*

INTRODUCTION
Speaking skills are an important competency in learning Japanese in conveying ideas. Building interaction in the context of communication. Speaking skills require not only an understanding of vocabulary and grammatical structures, but also pronunciation, fluency, language correctness and interaction. JF Standards through the principle of Can Do formulate Japanese language skills based on communicative actions taken by learners in certain situations (The Japan Foundation, 2017; Prasittichok & Smithsarakarn, 2024; Fitrianto & Seruni, 2026). KSpeaking skills are the ability to communicate orally which includes fluency, pronunciation accuracy, vocabulary mastery, grammatical accuracy, and the ability to convey ideas clearly and in accordance with the communication context (Rahmawati et al., 2025; Imelda et al., 2021). Therefore, speaking learning needs to provide opportunities for students

© 2026 Ayu Putri Seruni, Ninuk Lustyantie, Nuruddin. Published by Universitas Negeri Jakarta. This work is licensed under a Creative Commons Attribution 4.0 International License

DOI: https://doi.org/10.21009/ishel.v2i1.57752

to communicate repeatedly, get feedback and evaluate the development of Japanese language skills.

Although speaking skills are competencies in learning Japanese, their development still faces various challenges, especially in terms of pronunciation, fluency in speaking, grammatical accuracy, vocabulary mastery and the ability to interact and complete communication tasks. MStudents experience difficulties in spontaneous speech, contextual expressions, maintain fluent conversations and respond appropriately. Identify problems in learning and assessment of speaking second languages with limited variations in speaking tasks, lack of continuous assessment and opportunities to demonstrate spontaneous speaking skills (Koizumi, 2022). Analytical speaking skills assessment includes vocabulary, sentence structure, pronunciation and presentation of ideas (Srikaew et al., 2015; Kallio et al., 2023). In the context of Japanese language lectures, limited face-to-face time and individual practice opportunities have the potential to detract from the intensity of the lectures.atihan, so students need additional space outside the classroom to repeat the material, practice speech production, evaluate speaking performance and obtain feedback. Therefore, it is necessary to have a learning strategy that expands the opportunities latihan Speaking independently, flexibly and continuously supports the improvement of students' communicative competence.

Self-Regulated Learning (SRL) is a learning process that places students as individuals who actively manage their learning activities through goal setting, strategy selection, progress monitoring, and evaluation of learning outcomes independently. Self-Regulated Learning (SRL) It consists of three stages, namely planning learning objectives and strategies, implementing and monitoring the learning process, and then evaluating the results to improve further learning. (Chang & Sun, 2024; Takeuchi, 2019) In learning a foreign language, the ability to self-regulate is important because the success of learning is not only determined by activities during lectures, but also by students' consistency in managing time and carrying out exercises outside the classroom. PThe guidance of time management strategies and learning environments can encourage student involvement in online learning, although the sustainability of independent learning behavior still requires a process of internalizing strategies. (Sasaki, 2025)

In line with this, Shinohara (2025) PThe use of an e-learning environment equipped with self-assessment, progress monitoring, and interactive materials supports the motivation and independent learning behavior of Japanese language students in Indonesia. (Shinozaki, 2020) In the context of learning to speak Japanese, SRL can be applied through setting speaking ability targets, preparing training schedules, selecting strategies such as shadowing, dialogue repetition, and voice recording, as well as monitoring pronunciation progress, fluency, grammatical accuracy, vocabulary mastery, and interaction skills. Students can also evaluate speech recordings, identify mistakes, and set corrective strategies for future exercises. Thus, strengthening SRL has the potential to support the sustainability of speaking practice outside the classroom and help students develop Japanese communicative competencies in a more directed, independent, and sustainable manner.

Microlearning As A learning approach that presents material in short, focused, and accessible units that allow students to learn specific skills gradually and flexibly. Microlearning is oriented towards small-scale learning experiences with a specific focus on materials, which can be packaged through various forms of digital media. (The Dictation, 2020; Vyas et al., 2018). PThe presentation of the material in short and multimodal units

eISSN 3124-9396
Volume 2 , July 2026

allows learners to manage learning speed, reduce cognitive load, and develop Self-Regulated Learning (SRL) strategies, especially in goal setting, progress monitoring, and learning reflection (Kohnke et al., 2024). In the context of learning to speak Japanese, microlearning can be implemented through short-duration learning videos that present examples of pronunciation, vocabulary, sentence patterns, and communicative expressions, then continue with directed speaking tasks, such as shadowing, dialogue repetition, conversation simulation, and speech recording independently. Each learning unit can also be equipped with repetitive exercises, self-reflection, and short formative assessments so that students are able to identify mistakes and determine corrective strategies in the next exercise. PThe use of microlearning applications in foreign language learning has the potential to support the development of skills in giving feedback on speech, recognizing language errors, and monitoring practice results through flexible and repetitive activities (Gorham et al., 2023; Krygier et al., 2022). This characteristic shows the relationship between microlearning and SRL, because students have the opportunity to set training targets, manage learning time, monitor performance, and evaluate the development of their speaking skills independently. Thus, the integration of microlearning in learning to speak Japanese has the potential to strengthen self-regulation while improving speaking performance, especially in the aspects of pronunciation, fluency, grammatical accuracy, vocabulary mastery, and achievement of communication goals. However, this potential still needs to be empirically tested in the context of Japanese language learning to determine the extent to which microlearning contributes to the improvement of SRL and students' speaking skills.

Research on the use of technology in Japanese language learning shows the development of three main approaches, namely microlearning, speech skills development technology and SLR-based learning strategies. The three approaches are related, but differ in theoretical foundations, research focus and outcomes studied. Microlearning research emphasizes the presentation of material in short units and learning flexibility, through a one-group design with pre- and post-intervention measurements, showing the potential of microlearning applications in improving the quality of giving feedback to English speech, but have not directly measured the improvement of Japanese or SRL speaking skills.(Gorham et al., 2025). Meanwhile, The use of technology for speaking skills emphasizes the provision of exercises, repetition, interaction, and feedback on language performance. This approach provides an opportunity to expand speaking practice outside the classroom, but the use of technology does not in itself guarantee that students are able to plan, monitor, and evaluate their learning independently. In contrast to these two approaches, SRL-based research is based on the theory of self-regulation that emphasizes goal setting, strategy selection, progress monitoring, and reflection. Through case studies 19 language teacher candidates, found that microlearning modules can support the development of SRL strategies, especially goal planning, independence, and gradual improvement of strategies. However, the research focuses on the development of pedagogical competencies and the use of artificial intelligence, not on measuring students' speaking performance. Thus, previous research has provided evidence on the potential of microlearning in language learning, the benefits of technology for practice and feedback, and the importance of SRL in the management of independent

DOI: https://doi.org/10.21009/ishel.v2i1.57752

learning. However, studies that simultaneously measure changes in SRL and Japanese speaking performance through the application of microlearning still need to be developed. This gap is the basis for this study to examine the application of microlearning that integrates short learning videos, directed speaking tasks, repetitive exercises, self-reflection, and formative assessments in a systematic learning series.

Previous research has tended to focus on vocabulary mastery, the development of feedback skills, the use of learning technology, or the improvement of learning independence, so the relationship between independent learning settings and the development of speaking performance has not been widely studied in an integrated manner. Therefore, the novelty of this research lies in the application of a series of microlearning activities that connect Japanese speaking practice, independent learning process management, and reflection on speaking performance in one systematic learning design. The series of activities includes short learning videos, speech recording, and formative assessments to help students monitor the development of their speaking skills.

Theoretically, this study is expected to enrich the study of foreign language learning by providing empirical evidence on the relationship between the application of microlearning, self-regulation, and the development of Japanese speaking skills. Practically, the results of this study are expected to be the basis for lecturers to design more flexible, structured, and sustainable Japanese speaking learning through the integration of short learning videos, directed speaking assignments, repetitive exercises, self-reflection, and formative assessments. Thus, this research is expected to contribute to the development of Japanese language learning strategies in universities that are not only oriented towards improving communicative skills, but also encouraging students' independence in managing their learning process.

METHOD

This study uses a quantitative approach with a pre-experimental one-group pretest–posttest design to examine changes in students' Japanese speaking ability and Self-Regulated Learning (SRL) after participating in microlearning-based learning. The study involved 14 students of the Japanese Language Education Study Program who participated in speaking learning. The research design included three stages, namely the initial measurement (pretest), the implementation of the intervention, and the final measurement (posttest). In the initial stage, students took the Japanese speaking test and filled out the SRL questionnaire to obtain an overview of their pre-treatment abilities. Next, students participated in microlearning-based learning for four weeks. After the intervention was completed, students retook the speaking test and filled out the SRL questionnaire using the same measurement indicators. The comparison of pretest and posttest results was used to identify changes in the two variables after the implementation of microlearning.

The microlearning treatment is designed based on the principle of presenting material in short, focused, and flexible units. The learning media is in the form of short videos that contain examples of pronunciation, vocabulary, sentence patterns, and communicative expressions in Japanese according to the learning objectives. Each unit is carried out through a series of activities that include the delivery of learning objectives, video observation, directed speaking exercises, speech repetition, recording of speaking results, self-reflection, and brief formative assessments. Speaking activities include shadowing, dialogue repetition,

eISSN 3124-9396
Volume 2 , July 2026

and conversation simulation based on the communication situation learned. Students are given the opportunity to re-access the video and repeat the exercises independently to improve their speaking performance. At the end of each unit, students evaluate the results of the exercises by identifying difficulties, recording skill development, and setting improvement targets. The series of activities is designed to integrate the three phases of SRL, namely forethought through the determination of training goals and planning, performance through the implementation and monitoring of speaking activities, and self-reflection through the evaluation of training results and determination of improvement strategies. Lecturers play the role of providing instructions, facilitating activities, and providing feedback on student performance.

The research instrument consisted of a Japanese speaking ability test and an SRL questionnaire used in the pretest and posttest stages. The speaking test was carried out through oral communication tasks which were assessed using an analytical rubric with five aspects, namely pronunciation, fluency, grammatical accuracy, vocabulary mastery, and communicative competence. Meanwhile, the SRL questionnaire used a five-level Likert scale to measure goal setting, strategic planning, time management, self-monitoring, and self-evaluation. The data were analyzed using descriptive statistics in the form of mean scores and standard deviations to describe the results of measurements before and after the intervention. The Shapiro–Wilk normality test was conducted on the difference in pretest and posttest scores. If the assumption of normality was met, the difference in score was analyzed using the paired-samples t-test, while if it was not met, the Wilcoxon signed-rank test was used, with a significance level of 0.05. The effect size was also calculated to determine the magnitude of changes in speech ability and SRL after the intervention. The results of the analysis were interpreted taking into account the design limitations of one group without a control group so that the changes found did not directly indicate a definite cause-and-effect relationship.

RESULTS AND DISCUSSION

The Results and Discussion section presents the results of the analysis of changes in Japanese speaking ability and Self-Regulated Learning (SRL) in 14 students after participating in microlearning-based learning. The results of the study were analyzed using descriptive statistics, normality tests, paired-samples t-tests, and effect measures, then discussed based on previous theories and research to explain the findings and their implications for Japanese language learning.

Result

1.1. Descriptive Analysis of Japanese Speaking Proficiency and Self-Regulated Learning

This study aims to examine the change in students' speaking proficiency and Self-Regulated Learning (SRL) after participating in microlearning-based learning. The analysis was conducted on 14 students by comparing pretest and posttest scores on both variables.

DOI: https://doi.org/10.21009/ishel.v2i1.57752

Descriptive statistics included the number of participants, minimum, maximum, mean, and standard deviation, as presented in Table 1.

Table 1. Descriptive Statistics of Speaking Proficiency and Self-Regulated Learning

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Speak_Pre	14	58.00	77.00	63.0714	5.26913
Speak_Post	14	73.00	86.00	80.2857	3.98900
Diff_Speak	14	9.00	27.00	17.2143	5.83331
SRL_Pre	14	66.00	84.00	75.3571	6.09675
SRL_Post	14	88.00	98.00	92.5000	2.59437
Diff_SRL	14	7.00	27.00	17.1429	6.23707
Valid N (listwise)	14				

Note: N = 14 for each variable; M = mean; SD = standard deviation.

The talking score on the pretest ranged between 58 and 77, while the posttest ranged between 73 and 86. The average increased by 17.21 points. The SRL score on the pretest ranged between 66 and 84, while the posttest ranged between 88 and 98, with an average increase of 17.14 points.

The range of speaking improvement was 9–27 points and SRL 7–27 points. Based on the summary of the difference, all students experienced an increase in scores on both variables. The decrease in elementary school in the posttest showed that the distribution of final scores was more uniform, but did not by itself prove the effectiveness of the treatment.

1.2. Normality Test of Pretest–Posttest Differences

Before hypothesis testing, the distribution of pretest and posttest score differences was examined using the Kolmogorov–Smirnov and Shapiro–Wilk normality tests. Normality testing was performed on difference scores, because the assumption of normality in the paired-samples t-test is related to the distribution of score differences from the same measurement pair. The results of normality testing are presented in Table 2.

Table 2. Tests of Normality for Speaking Proficiency and Self-Regulated Learning

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Say.	Statistic	df	Say.
Diff_Speak	.184	14	.200*	.942	14	.445
Diff_SRL	.112	14	.200*	.962	14	.764
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

The Shapiro–Wilk test on the difference score yielded $p > 0.05$ for both variables. Thus, insufficient evidence was found of deviations from normality; these results are not proof that the distribution is necessarily normal. Recalculations of individual data according to the output. Visual examination of Q–Q plots and outliers has not been performed in this verification.

eISSN 3124-9396
Volume 2 , July 2026

1.3. Paired-Samples t-Test of Speaking Proficiency and Self-Regulated Learning

Hypothesis testing was performed using a paired-sample t-test to determine if there was a significant difference between pretest and posttest scores of Japanese speaking ability and SRL. The zero hypothesis (H_0) states that there is no mean difference between the two measurements, while the alternative hypothesis (H_1) states that there is a significant difference in mean behavior. The paired measurement statistics are presented in Table 3.

Table 3. Paired-Samples Statistics of Speaking Proficiency and Self-Regulated Learning

Paired Samples Statistics						
		Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Speak_Pre	63.0714	14	5.26913	1.40823	
	Speak_Post	80.2857	14	3.98900	1.06610	
Pair 2	SRL_Pre	75.3571	14	6.09675	1.62942	
	SRL_Post	92.5000	14	2.59437	.69338	

Based on Table 3, both variables show an average increase in the final measurement. To determine whether the difference is statistically significant, a test is performed on the difference in the score of each measurement pair. The test results are presented in **Table 4.**

Paired-Samples t-Test Results

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Speak_Pre - Speak_Post	-17.21429	5.83331	1.55902	-20.58234	-13.84623	-11.042	13	.000
Pair 2	SRL_Pre - SRL_Post	-17.14286	6.23707	1.66693	-20.74404	-13.54168	-10.284	13	.000

The results of the paired-sample t-test in Table 4 showed a significant difference between the pretest and posttest scores of Japanese speaking ability, $t(13) = -11.042$, $p < 0.001$. The average score increased by 17.21 points, with a 95% confidence interval for an increase of [13.85; 20.58]. Thus, the zero hypothesis was rejected, and the results showed a significant improvement in speaking skills after students participated in microlearning-based learning.

Similar results were found in SRL, with a value of $t(13) = -10.284$, $p < 0.001$. The average SRL score increased by 17.14 points, with a 95% confidence interval for an increase of [13.54; 20.74]. These findings showed a statistically significant improvement in student self-regulation after participating in the learning intervention.

DOI: https://doi.org/10.21009/ishel.v2i1.57752

1.4. Effect Size Analysis

In addition to testing statistical significance, this study calculated effect size using Cohen's dz to determine the magnitude of the change in scores in the same group. Cohen's dz was calculated by dividing the average difference between posttest and pretest scores by the standard deviation of the score difference. The results of the effect size calculation are presented in Table 5.

Table 5. Effect Size of Speaking Proficiency and Self-Regulated Learning

Variable	Mean Gain	SD of Difference	Cohen's d_z
Speaking proficiency	17,21429	5,83331	2,95
Self-Regulated Learning	17,14286	6,23707	2,75

Based on Table 5, speaking Japanese had a Cohen's dz score of 2.95, while SRL had a score of 2.75. Both scores showed large standardized changes in the group of students studied. These results reinforce the descriptive and inferential statistical findings that there was a considerable increase in both variables during the study period. However, the effect size describes the magnitude of the change in the group and cannot be used as evidence that the changes were entirely due to the microlearning intervention.

Discussion

2.1. Improvement in Japanese Speaking Proficiency through Microlearning

The results showed a significant improvement in Japanese speaking skills after students participated in microlearning-based learning for four weeks. The average increase of 17.21 points, with a value of $t(13) = -11.042$ and $p < 0.001$, showed that students' speaking performance at the end of learning was higher than that of the initial ability. The magnitude of the change was also indicated by Cohen's dz value of 2.95. These findings indicate that learning that integrates short material, directed exercises, repetition, and reflection can support the development of Japanese speaking skills.

This improvement can be explained through the characteristics of microlearning that emphasizes the presentation of material in small, focused units, as stated by Hug (2005). In learning to speak Japanese, the material presented through short videos allows students to focus on certain linguistic elements, such as pronunciation, vocabulary, sentence patterns, and communicative expressions. Shadowing activities, dialogue repetition, and conversation simulation provide opportunities for students to practice the use of language repeatedly. The flexibility of access to materials also allows students to adjust the frequency of practice to their individual needs and abilities.

These findings are related to the research of Gorham et al. (2023), which showed the potential of microlearning applications in supporting the development of skills to provide feedback on speech in learning a foreign language. However, the study focused on the skills of identifying errors and providing feedback on English, while this study measured changes in overall Japanese speaking ability. Thus, the results of this study provide preliminary empirical evidence regarding the application of microlearning to the learning of Japanese productive skills in college.

eISSN 3124-9396
Volume 2 , July 2026

However, the increase in overall scores has not been able to explain the aspect of speaking ability that has experienced the greatest development. This study has not presented the results of a separate analysis of pronunciation, fluency, grammatical accuracy, vocabulary mastery, and communicative competence. Therefore, a more detailed analysis is needed to identify the contribution of each aspect to improving student speaking performance.

2.2. Improvement in Self-Regulated Learning through Microlearning

Significant improvements were also found in Self-Regulated Learning (SRL), with an average score increase of 17.14 points and a Cohen's dz score of 2.75. These findings show that students obtain higher self-regulation scores after participating in microlearning-based learning. These improvements can be conceptually related to learning characteristics that provide students with the opportunity to manage their time, set practice targets, monitor progress, and evaluate their learning outcomes independently.

In the perspective of the theory of SRL Zimmerman and Moylan (2009), the self-regulation process takes place through three phases, namely forethought, performance, and self-reflection. These three phases can be integrated into a series of microlearning-based learning. In the forethought phase, students set the goals of speaking practice and determine the strategies to be used. In the performance phase, students learn the material through short videos, carry out speaking tasks, and monitor the results of the exercises. Furthermore, in the self-reflection phase, students evaluate their speaking performance and determine improvement steps for the next activity.

The findings of this study are conceptually in line with Kohnke et al. (2025), who show that the use of microlearning can support goal setting, independence, and improvement of learning strategies in the education of prospective English teachers. However, in contrast to the study which uses a qualitative approach, this study uses quantitative measurements before and after the intervention to identify changes in students' SRL scores in learning to speak Japanese.

Although the results showed a significant increase in SRL, the available data did not allow the researchers to determine which SRL indicators experienced the greatest increase. In addition, the results of the questionnaire could not confirm whether the change in students' self-regulation would persist after the intervention ended. Therefore, follow-up research needs to involve long-term measurements and supporting data, such as student reflection journals, study activity records, and observations of independent learning behavior.

2.3. Integration of Speaking Proficiency and Self-Regulated Learning

The main finding of this study was that there was a significant improvement in speaking ability in Japanese and SRL in the same learning period. The increase in speaking ability by 17.21 points and SRL by 17.14 points showed that both variables experienced positive development after students participated in a series of microlearning activities. These results provide an initial empirical basis to consider the integration of speaking skills training with independent learning management strategies in Japanese language learning.

DOI: https://doi.org/10.21009/ishel.v2i1.57752

Theoretically, speaking skills require continuous practice, while SRL supports students' ability to plan, implement, and evaluate the learning process. The integration of these two aspects can be realized through microlearning activities that not only deliver material in the form of short videos, but also provide opportunities for students to conduct repetitive exercises, record speech, identify mistakes, and set improvement targets. This series of activities has the potential to create a more flexible, structured, and reflective learning process.

The novelty of this study lies in the application of a series of microlearning activities that integrate Japanese speaking practice with the process of self-regulation in one learning design. In contrast to the research that only focuses on the use of technology as a medium for delivering material, this study measures changes in two learning outcomes, namely speaking performance and SRL. However, the simultaneous increase in the two variables cannot be directly interpreted as evidence of a cause-and-effect relationship between SRL and speaking ability. This study did not conduct correlation analysis or mediation testing, so the statistical relationship between the changes between the two variables cannot be concluded.

2.4. Research Limitations and Pedagogical Implications

Although the results showed significant improvement and large effect sizes, there are several limitations to consider. First, the study used a one-group pretest–posttest design without a control group, so it did not allow researchers to isolate the influence of microlearning from other factors, such as ability development during learning, additional learning experiences, and test repetition. Second, the limited number of participants, 14 students, limited the generalization of results to the broader Japanese language education student population. Third, the study was conducted for four weeks so that it could not explain the long-term sustainability of speech and SRL changes.

Despite these limitations, the results of the study provide practical implications for the development of Japanese language learning in higher education. Lecturers can consider using microlearning as a complementary approach to face-to-face learning by providing short videos, directed speaking assignments, repetitive exercises, self-reflection, and formative assessments. This series of activities can provide students with the opportunity to expand their speaking practice outside the classroom while developing self-study habits. Further research is suggested using an experimental design with a comparison group, involving a larger number of participants, and analyzing the development of each indicator of speaking ability and SRL separately. Thus, further research can provide stronger evidence on the effectiveness of microlearning and learning mechanisms that contribute to the development of Japanese speaking skills.

CONCLUSION

This study showed a significant improvement in students' speaking proficiency and Self-Regulated Learning (SRL) after participating in microlearning-based learning for four weeks. The results of the analysis of 14 students showed that the average speaking ability score increased from 63.07 to 80.29, with an increase of 17.21 points ($t(13) = -11.042$; $p < 0.001$). Meanwhile, the average SRL score increased from 75.36 to 92.50, with an increase of 17.14 points ($t(13) = -10.284$; $p < 0.001$). The values of the Cohen's dz effect measure of 2.95 for speaking ability and 2.75 for SRL showed large standardized changes in both

eISSN 3124-9396
Volume 2 , July 2026

variables. These findings provide preliminary empirical evidence regarding the potential of microlearning-based learning in supporting the development of Japanese speaking skills and student self-regulation simultaneously. Theoretically, this study enriches the study of the integration of microlearning and SRL in the learning of foreign language productive skills. Practically, the results of the study can be considered for lecturers in designing Japanese speaking learning through short videos, directed speaking assignments, repetitive exercises, self-reflection, and formative assessments that support independent and continuous learning. However, the use of a one-group pretest–posttest design without a control group and a limited number of participants has not allowed the drawing of causal conclusions regarding the effectiveness of microlearning. Therefore, further research is suggested to involve comparison groups, a larger number of participants, and long-term measurements to test the effectiveness and sustainability of students' speech and SRL development.

BIBLIOGRAPHY

Chang, W. L., & Sun, J. C. Y. (2024). Evaluating AI's impact on self-regulated language learning: A systematic review. *System*, *126*. https://doi.org/10.1016/j.system.2024.103484

Fitrianto, D., & Seruni, A. P. (2026). Indonesian Migrant Workers ' Perceptions of Machine Translation and Adaptation Techniques in Occupational Safety Vocabulary in Japan Indonesian Migrant Workers ' Perceptions of Machine Translation and Adaptation Techniques in Occupational Safety Vocabular. *Ethical Lingua*, *12*(2). https://doi.org/10.30605/25409190.992

Gorham, T., Majumdar, R., & Ogata, H. (2023). Analyzing learner profiles in a microlearning app for training language learning peer feedback skills. *Journal of Computers in Education*, *10*(3), 549–574. https://doi.org/10.1007/s40692-023-00264-0

Gorham, T., Majumdar, R., & Ogata, H. (2025). A microlearning app for peer feedback training and its effect on learning performance and self-confidence during an EFL speaking task. *Smart Learning Environments*, *12*(1). https://doi.org/10.1186/s40561-025-00387-0

Imelda, I., Rahmat, A., & Nuruddin, N. (2021). Development Learning Materials for the Responding Skills in Speaking the Basic Japanese Language â€"Beginning Step. In *Journal of Educational Science and Technology (EST)* (pp. 26–31). https://doi.org/10.26858/est.v7i1.15242

Kallio, H., Kautonen, M., & Kuronen, M. (2023). Prosody and fluency of Finland Swedish as a second language: Investigating global parameters for automated speaking assessment. *Speech Communication*, *148*(February 2021), 66–80. https://doi.org/10.1016/j.specom.2023.02.003

Kohnke, L., Foung, D., & Zou, D. (2024). Microlearning: A new normal for flexible teacher professional development in online and blended learning. *Education and Information Technologies*, *29*(4), 4457–4480. https://doi.org/10.1007/s10639-023-11964-6

Koizumi, R. (2022). L2 Speaking Assessment in Secondary School Classrooms in Japan.

Language Assessment Quarterly, *19*(2), 142–161. https://doi.org/10.1080/15434303.2021.2023542

Krygier, D., Knowles, L. R., Gill, A., Kwong, C. F., Irwin, D., Towey, D., & Pike, M. (2022). Evaluating Microlearning: A Cross-faculty Case Study of a Sino-foreign University. *Agile Learning Environments amid Disruption: Evaluating Academic Innovations in Higher Education during COVID-19*, 51–62. https://doi.org/10.1007/978-3-030-92979-4_4

Pradikta, A. C. (2020). Foreign Workers' Roles for Businesses Breakout Process in an Ethnically Themed Market: The Case of Halal Food Markets in Kyoto, Japan. *Populasi*, *27*(2), 71. https://doi.org/10.22146/jp.55150

Prasittichok, P., & Smithsarakarn, P. (2024). The Effects of Microlearning on EFL Students' English Speaking: A Systematic Review and Meta-Analysis. *International Journal of Learning, Teaching and Educational Research*, *23*(4), 525–546. https://doi.org/10.26803/ijlter.23.4.27

Rahmawati, E., Herlina, H., & Lustyantie, N. (2025). Social Sciences & Humanities Open Unleashing English-speaking proficiency : The role of academic environment , technology , and linguistic adaptability evidence from Indonesia. *Social Sciences & Humanities Open*, *12*(August), 101821. https://doi.org/10.1016/j.ssaho.2025.101821

Sasaki, A. (2025). *Transitioning from Other-Regulation to Self-Regulation in e-Learning Strategies Among Japanese EFL University Students*. *7*, 177–195.

Shinozaki, K. (2020). *… Japanese language learning by French-speaking adults in France and in Japan: unidirectional and interactional reception modes for the Japanese …*. <bound method Organization ….

Srikaew, D., Tangdhanakanond, K., & Kanjanawasee, S. (2015). Development of an English Speaking Skill Assessment Model for Grade 6 Students by Using Portfolio. *Procedia - Social and Behavioral Sciences*, *191*, 764–768. https://doi.org/10.1016/j.sbspro.2015.04.715

Takeuchi, K. (2019). Self-regulated Learning of Japanese University Students in Second Language Acquisition. *The Bulletin of the Graduate School, Soka University*, 155–182. https://cir.nii.ac.jp/crid/1050564288333539840

The Japan Foundation. (2017). *JF Standard for Japanese Language Education: User Manual【Latest Edition】*. 1–98.

Vyas, M., Thakur, S., Riyaz, B., Bansal, K. K., Tomar, B., & Mishra, V. (2018). Artificial intelligence: The beginning of a new era in pharmacy profession. *Asian Journal of Pharmaceutics*, *12*(2), 72–76. http://www.asiapharmaceutics.info/index.php/ajp/article/view/2317