

The Effectiveness of Shadowing Techniques on Speaking Fluency of 11th Grade Students at SMA Negeri 1 Bambanglipuro

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Abstract

This study aimed to examine the effectiveness of the shadowing technique in improving the speaking fluency of eleventh-grade students at State of Senior High School 1 Bambanglipuro. Speaking fluency remains a significant challenge for English as a Foreign Language (EFL) learners, particularly in producing smooth, continuous, and coherent speech with minimal hesitation. Therefore, this study focused on investigating whether the implementation of the shadowing technique could significantly enhance students' speaking fluency compared to conventional teaching methods. This study employed a quantitative approach using a quasi-experimental two-group pretest–posttest design. The research was conducted at State of Senior High School 1 Bambanglipuro, Yogyakarta, involving two classes of eleventh-grade students, consisting of 32 students in the experimental group and 27 students in the control group. Data were collected through speaking tests administered as pre-test and post-test. The research instrument was a monologue speaking test assessed using an analytic scoring rubric covering speech rate, pausing and hesitation, continuity, and automaticity. The data were analyzed using descriptive and inferential statistics through Analysis of Covariance (ANCOVA). The results showed that the experimental group improved significantly from a mean score of 54.06 to 83.44, while the control group showed only a slight improvement from 58.52 to 63.89. The ANCOVA results revealed a statistically significant effect of the instructional technique on students' speaking fluency ($F = 22.456$; $p < 0.001$; $\eta^2 = 0.290$). It can be concluded that the shadowing technique is effective in improving students' speaking fluency.

Keywords: EFL learners; quasi-experimental; shadowing technique; speaking fluency; speaking proficiency.

INTRODUCTION

Speaking is widely recognized as one of the most essential productive skills in language learning, serving as the primary medium through which individuals convey ideas, negotiate meaning, and engage in social interaction. According to Nunan (2003), speaking is the ability to express oneself in a spoken language, encompassing both accuracy and fluency. Brown (2004) defines fluency as the ability to speak smoothly, coherently, and with minimal hesitation, which reflects a speaker's competence in real-time communication. Hence, speaking fluency represents not only linguistic mastery but also the practical capacity to communicate effectively in authentic situations.

In the Indonesian educational context, particularly at the secondary school level, developing speaking fluency remains a persistent challenge. Observations conducted in the eleventh-grade English classes at State of Senior High School 1 Bambanglipuro, supported by feedback from the English teacher, revealed that many students struggled to express themselves fluently (Andini & Zaitun, 2022; Cheng & Zhang, 2024; DeKeyser & Suzuki, 2025). Common manifestations of these difficulties included frequent pauses, the excessive use of filler words, and low levels of confidence during oral activities. Such weaknesses

significantly hindered students' communicative competence, limiting their ability to participate actively in classroom discourse and impeding their readiness to use English in real-life contexts (Foote & McDonough, 2017; Hikmat & Hasan, 2022; Isaacs et al., 2015).

Several factors contribute to these challenges. One major cause is the limited opportunity for students to engage in authentic communicative practice. Classroom activities in Indonesian schools often rely heavily on traditional methods such as vocabulary memorization, grammar drills, or mechanical question-and-answer sessions. While these methods may strengthen linguistic knowledge, they rarely provide sufficient interactive practice for students to internalize natural speech patterns (Junipisa & Aristana, 2021; Lestari, 2020; Lim, 2019). Thornbury (2005) emphasizes that fluency is best cultivated through repeated exposure to meaningful and dynamic language use, which traditional approaches often fail to offer. Consequently, there is a need for alternative instructional strategies that can create more engaging, authentic, and effective learning experiences.

Within this context, the shadowing technique emerges as a promising pedagogical innovation. Lambert (1992) describes shadowing as an oral practice in which learners listen to spoken input and immediately repeat it, closely imitating the speaker's pronunciation, intonation, and rhythm. Murphey (2001) further highlights that shadowing fosters automaticity in speech production, enabling learners to internalize natural language structures and produce speech with greater fluency. Empirical studies by Kadota (2012) and Hamada (2016) also demonstrate that shadowing can significantly enhance learners' fluency and listening comprehension, providing robust evidence of its pedagogical value.

Although shadowing has been widely examined in international contexts, particularly in Japan and Korea, its application in Indonesian high schools has not been sufficiently explored. Several local studies have examined the use of the shadowing technique in EFL contexts; however, its application at the secondary school level remains underexplored. This gap is noteworthy, as high school students in Indonesia often face distinct challenges related to limited exposure to authentic English, classroom anxiety, and varying levels of linguistic readiness.

Given these circumstances, the urgency of this research lies in the need to address a persistent pedagogical gap in the teaching of speaking fluency at the Indonesian secondary school level. Despite the growing emphasis on communicative competence in national curricula, existing instructional practices remain largely ineffective in cultivating automaticity and real-time language use (Musadiq & Kamaluddin, 2025; Özdemir & Seçkin, 2025; Suzuki et al., 2025). Empirical evidence regarding the implementation of the shadowing technique in this context is still scarce, leaving a critical void in both theoretical understanding and classroom application. Conducting a systematic investigation into the effectiveness of shadowing for high school learners is therefore essential to provide empirical clarity and pedagogical direction for fluency-oriented instruction. This urgency is further reinforced by the increasing need for students to communicate effectively in academic and broader social contexts, where speaking fluency plays a central role (Tran et al., 2024; Utami & Morganna, 2022; Yenkimaleki & Van Heuven, 2025).

Despite the long-standing implementation of English as a compulsory subject in Indonesian senior high schools, the development of students' speaking fluency remains a persistent challenge. Preliminary classroom observations at State of Senior High School 1

Bambanglipuro, corroborated by discussions with the English teacher, revealed that many eleventh-grade students struggled to communicate orally with fluency and confidence. Their speech often contained frequent pauses, filler words, and noticeable hesitation, which disrupted the natural flow of communication and impeded overall intelligibility.

One major issue underlying these difficulties lies in limited opportunities for authentic oral practice. Classroom activities in many EFL settings are still dominated by teacher-centered instruction, rote memorization, and written exercises that prioritize grammatical accuracy over communicative performance. As a result, students rarely engage in meaningful, spontaneous speaking tasks that simulate real-world interaction. This limited exposure to natural spoken language restricts their ability to develop speech automaticity, a key component of fluency, as emphasized by Segalowitz (2010).

A second problem concerns the inadequate integration of listening and speaking skills in classroom pedagogy. According to Nation & Newton (2009), learners must first receive sufficient comprehensible input before they can produce fluent output. However, in many Indonesian classrooms, these skills are taught separately rather than interactively. Students often lack models of authentic pronunciation, rhythm, and intonation that could guide them in producing natural speech. Empirical studies in recent years further underscore the pedagogical value of tightly integrating listening and speaking through structured shadowing practice. Arboleda et al. (2023) report positive gains in fluency and pronunciation among pre-service EFL teachers who used systematic shadowing activities, while Surayya et al. (2024) demonstrate significant improvements in undergraduate speaking performance when shadowing was combined with Voice of America (VOA) learning materials. These findings reinforce the argument that integrating receptive and productive practice, rather than teaching them in isolation, can directly support temporal fluency and prosodic control among EFL learners.

Another issue involves students' affective barriers, particularly anxiety and low self-confidence in speaking English. Studies such as Horwitz et al. (1986) have shown that anxiety can significantly hinder fluency, as learners tend to focus excessively on correctness instead of meaning. The limited use of engaging, low-pressure techniques further exacerbates students' reluctance to speak, making them dependent on memorized responses rather than developing spontaneous speech production. Building on this perspective, Wang et al. (2024) argue that affective factors, including motivation, enjoyment, and self-efficacy, interact with cognitive processing speed to influence fluency performance, implying that effective instruction must address both cognitive and emotional dimensions of speaking.

Finally, there is a lack of innovative instructional strategies specifically designed to enhance oral fluency in the Indonesian secondary education context. While international research has demonstrated the effectiveness of techniques such as shadowing in improving fluency and pronunciation (Kadota, 2012; Hamada, 2016), few studies have explored its application in Indonesian high schools. This creates a contextual research gap, both pedagogical and empirical in nature, that warrants further investigation. It remains necessary to determine whether such techniques can effectively address persistent issues of fluency, confidence, and authenticity in students' spoken English.

Given these circumstances, the urgency of this research lies in the need to address a persistent pedagogical gap in the teaching of speaking fluency at the Indonesian secondary

school level. Despite the growing emphasis on communicative competence in national curricula, existing instructional practices remain largely ineffective in cultivating automaticity and real-time language use. Empirical evidence regarding the implementation of the shadowing technique in this context is still scarce, leaving a critical void in both theoretical understanding and classroom application. Conducting a systematic investigation into the effectiveness of shadowing for high school learners is therefore essential to provide empirical clarity and pedagogical direction for fluency-oriented instruction. This urgency is further reinforced by the increasing need for students to communicate effectively in academic and broader social contexts, where speaking fluency plays a central role. According to Wang et al. (2024), speaking fluency is influenced by cognitive and affective factors that interact with instructional design, making evidence-based interventions critically important.

The novelty of this research lies in three key aspects. First, this study applies the shadowing technique to the underexplored context of Indonesian senior high school EFL learners, whereas previous studies in Indonesia have predominantly focused on university-level students (Pratiwi, 2021; Sari & Widiati, 2022; Rosyidi et al., 2022). Second, this study employs a rigorous quasi-experimental design with ANCOVA statistical analysis to control for initial differences between groups, providing stronger causal evidence compared to pre-experimental or descriptive studies. Third, this research uses a multidimensional analytic scoring rubric specifically designed to measure four distinct aspects of fluency (speech rate, pausing and hesitation, continuity, and automaticity), offering a more nuanced assessment than global fluency ratings. This novelty addresses the research gap identified from the works of Hamada (2016), Kadota (2012), and local Indonesian studies, which have not systematically examined shadowing's effectiveness for secondary school fluency development using controlled experimental designs.

Based on these conditions, it is essential to conduct a systematic investigation into instructional techniques that can bridge these pedagogical gaps. The present study, therefore, focuses on examining the effectiveness of the shadowing technique in improving the speaking fluency of eleventh-grade students at State of Senior High School 1 Bambanglipuro, with the expectation that it can offer a theoretically grounded and practically viable contribution to English language teaching in Indonesian schools.

METHOD

This study adopted a quantitative approach employing a quasi-experimental two-group pretest–posttest design. The design was chosen to examine the effect of the shadowing technique on students' speaking fluency while maintaining ecological validity within an authentic classroom environment. The quasi-experimental framework is particularly appropriate in educational contexts where random assignment is not feasible due to the fixed structure of intact classes. This approach enables the researcher to investigate the treatment effect of shadowing instruction without disrupting the natural dynamics of the learning setting.

In this design, two intact classes of eleventh-grade students at State of Senior High School 1 Bambanglipuro were purposively assigned as the experimental and control groups. The experimental group received instruction using the shadowing technique, whereas the control group followed conventional teaching methods based on the existing school

curriculum. Both groups undertook a pre-test before the treatment and a post-test after the intervention to measure learning gains and assess differences in improvement. The intervention lasted approximately six weeks, with two sessions conducted per week, each lasting forty-five minutes. Every session for the experimental group emphasized active listening and immediate repetition of authentic English input, focusing on rhythm, stress, and intonation.

True experimental designs with random assignment generally provide stronger control over extraneous variables; however, such procedures are rarely feasible in real classroom conditions. The quasi-experimental design employed in this research thus offers a rigorous yet practical alternative that supports both internal and external validity. Internal validity is strengthened by the inclusion of pre-test and post-test comparisons and by applying Analysis of Covariance (ANCOVA) to control for initial group differences. External validity is enhanced through the use of intact classes and authentic instructional practices, allowing the findings to be applicable to similar educational contexts.

Data Collection Techniques and Instruments

This section explains the procedures and instruments used to collect the research data. The data collection process was designed to obtain systematic and reliable information about students' speaking fluency before and after the instructional intervention. To achieve this objective, speaking tests were administered to both the experimental and control groups in the form of a pre-test and a post-test.

Data Collection Techniques

The data in this study were collected through systematically administered speaking tests designed to measure the impact of the shadowing technique on students' speaking fluency. The data collection process followed a structured sequence consisting of three main stages: pre-test administration, instructional intervention, and post-test administration. Both the experimental and control groups participated in the pre-test and post-test to ensure comparability of results. However, only the experimental group received the shadowing treatment, while the control group followed conventional instruction in accordance with the existing school curriculum. This distinction allowed the researcher to examine the specific contribution of the shadowing technique to students' fluency development.

The pre-test was conducted before the instructional intervention to determine the participants' initial speaking fluency. Each student performed a short monologue on a curriculum-related topic after a brief preparation period. The pre-test results served to establish the baseline level of students' speaking fluency and were later used as the covariate in the statistical analysis.

Following the pre-test, the treatment phase was conducted over approximately six weeks, consisting of two instructional sessions per week, each lasting forty-five minutes. During this phase, the experimental group received instruction using the shadowing technique, which involved listening to English audio input and immediately repeating it to practice pronunciation, rhythm, and speech flow. Meanwhile, the control group continued

with conventional speaking activities such as dialogues, discussions, and role-play without the implementation of shadowing practice.

The post-test was administered after the completion of the treatment period. The structure and level of difficulty of the post-test were designed to be equivalent to those of the pre-test to ensure fairness and comparability. The purpose of the post-test was to measure the extent of improvement in students' speaking fluency after the intervention and to determine whether the experimental group showed greater improvement than the control group.

All students' speaking performances were recorded to facilitate accurate and consistent evaluation during the scoring process. These recordings enabled the researcher to review the performances carefully when assigning scores using the established rubric.

Research Instruments

The primary research instrument used in this study was a speaking test accompanied by an analytic scoring rubric to evaluate students' speaking fluency. The speaking test was designed to elicit spontaneous oral responses from students in order to assess their ability to produce continuous and intelligible speech in English.

The speaking task consisted of a short monologue in which each student was given a familiar topic related to classroom learning. Students were provided with a short preparation time before delivering their responses orally. Both the pre-test and post-test used similar task formats and comparable topics to ensure consistency in the measurement of speaking performance.

Students' speaking performances were assessed using an analytic scoring rubric adapted from Brown (2004). The rubric focuses on four aspects of speaking fluency, namely speed or rate of speech, pausing and hesitation, continuity or smoothness, and automaticity. These aspects represent observable indicators of students' ability to produce spoken language smoothly and continuously with minimal interruption. Each aspect is rated using a five-point scale ranging from 1 (poor) to 5 (excellent). The scores from all aspects are summed to obtain a total fluency score for each student.

Each aspect of speaking performance was evaluated using a five-point scale, where higher scores indicated better speaking performance.

Table 1. Analytic Scoring Scale for Speaking Fluency

Aspect	5 (Excellent)	4 (Good)	3 (Fair)	2 (Limited)	1 (Poor)
Speed/Rate of Speech	Speaks at a natural and consistent speed throughout.	Speaks at a generally natural speed with slight slowing at times.	Speaks at an uneven speed with noticeable slowing.	Speaks at a slow speed most of the time.	Speaks at a very slow and fragmented speed.
Pausing & Hesitation	Produces very few pauses, with pauses mostly content-related.	Produces occasional pauses that do not interrupt meaning.	Produces noticeable pauses that sometimes affect flow.	Produces frequent pauses that often disrupt flow.	Produces constant pauses that severely break the flow.
Continuity/Smoothness	Maintains smooth and continuous	Maintains mostly smooth speech with	Maintains some smoothness but with regular	Maintains limited smoothness	Maintains very little smoothness;

	speech throughout.	minor disruptions.	disruptions.	with frequent disruptions.	speech is highly disrupted.
Automaticity	Speaks with strong automaticity and minimal effort.	Speaks with good automaticity with occasional effort.	Speaks with moderate automaticity but with frequent effort.	Speaks with low automaticity and considerable effort.	Speaks with very low automaticity and extreme effort.

The total score derived from the four aspects of the analytic rubric was used to represent students’ overall speaking fluency in both the pre-test and post-test. The speaking performances in both tests were assessed by a single rater, namely the researcher. To maintain scoring consistency, all student performances were recorded and evaluated using the same rubric and scoring criteria. The use of recorded performances allowed the researcher to review students’ responses carefully during the scoring process and ensured that the evaluation was conducted systematically.

The structured scoring rubric and standardized evaluation procedures helped ensure that the assessment of students’ speaking fluency was conducted consistently. The resulting scores served as the primary data used to compare the speaking performance of the experimental and control groups and to determine the effectiveness of the shadowing technique in improving students’ speaking fluency.

Data Analysis Techniques

The data collected from both the experimental and control groups will be analyzed quantitatively to determine the extent to which the shadowing technique influences students’ speaking fluency. Quantitative analysis is chosen to ensure objectivity, replicability, and precision in interpreting the results. The analysis is designed not only to identify improvement within each group but, more importantly, to compare the degree of improvement between the two groups, thereby establishing the differential effect of the instructional treatment. Both descriptive and inferential statistical methods are employed to provide a comprehensive understanding of the treatment’s impact.

RESULT AND DISCUSSION

This section presents the results of the data analysis conducted to examine the effect of the shadowing technique on students’ speaking fluency. The findings are organized sequentially to reflect the stages of analysis undertaken in this study. The section begins with descriptive statistics of students’ pre-test and post-test scores, followed by assumption testing required for the use of Analysis of Covariance (ANCOVA), and concludes with hypothesis testing. This structured presentation is intended to ensure clarity and logical flow in explaining how the research questions were addressed.

Descriptive Statistics of Students’ Speaking Fluency

Descriptive statistics were calculated for the pre-test and post-test speaking fluency scores using SPSS. The output includes the number of students, minimum and maximum scores, mean scores, and standard deviations for each group. These statistics are presented to

show the general pattern of students' performance before and after the instructional treatment and to observe whether there was an observable difference between the two classes.

In this study, the experimental group consisted of 32 students who received instruction using the shadowing technique, while the control group consisted of 27 students who were taught using conventional teaching methods. Both groups were administered a pre-test before the treatment and a post-test after the completion of the treatment. The descriptive statistics of the pre-test scores are shown in Table 2.

Table 2. Descriptive Statistics of Pre-Test Speaking Fluency Scores

Group	N	Minimum	Maximum	Mean	Standard Deviation
Experimental	32	35	80	54.06	12.07
Control	27	40	85	58.52	10.26

Based on Table 2, the control class obtained a slightly higher mean score ($M = 58.52$) compared to the experimental class ($M = 54.06$). The difference between the two means is not large, yet it shows that the initial speaking fluency level of the control class was somewhat better. The minimum and maximum scores in both groups indicate that students' abilities varied considerably at the beginning of the study. The experimental class's scores ranged from 35 to 80, while the control class's scores ranged from 40 to 85. The standard deviation values (12.07 for experimental and 10.26 for control) suggest that the spread of scores in both classes was relatively similar, although the experimental class showed slightly more variation. Because the initial means were not identical, the pre-test score was statistically controlled in the next stage of analysis using ANCOVA.

After the instructional treatment was implemented for several meetings, a post-test was administered using the same scoring rubric and converted scoring scale. The descriptive statistics of the post-test scores are presented in Table 3.

Table 3. Descriptive Statistics of Post-Test Speaking Fluency Scores

Group	N	Minimum	Maximum	Mean	Standard Deviation
Experimental	32	70	100	83.44	7.56
Control	27	50	85	63.89	8.58

Table 3 shows a more noticeable difference between the two groups. The experimental class achieved a mean score of 83.44, while the control class obtained a mean of 63.89. The increase in the experimental class is substantial compared to its pre-test mean (from 54.06 to 83.44). In contrast, the control class shows a smaller increase (from 58.52 to 63.89). The minimum score in the experimental class after instructional treatment was 70, which indicates that even the lowest-performing students improved to a moderate level of fluency. The decrease in standard deviation in the experimental class (from 12.07 to 7.56) suggests that students' performance became more consistent after receiving the shadowing instructional treatment. In comparison, the control class's spread of scores remained relatively similar. These descriptive results indicate that the experimental class experienced greater improvement, which is further examined through inferential statistical analysis.

Assumption Testing for ANCOVA

Before conducting ANCOVA, several statistical assumptions were tested to ensure that the model could be applied appropriately. The tests covered normality of score distribution, homogeneity of variance, and homogeneity of regression slopes. All assumption tests were conducted using SPSS. The level of significance adopted in this study was set at 0.05, which is commonly used in educational research. A significance value greater than 0.05 indicates that the assumption is satisfied, whereas a value lower than 0.05 indicates a violation of the assumption.

Normality Test

Normality of distribution was tested using the Shapiro–Wilk test because the sample size in each group was below fifty. The test was applied to pre-test and post-test scores in both groups.

Table 4. Summary of Normality and Homogeneity Test

Test	Group	Sig. Value	Interpretation
Shapiro-Wilk (Pre-test)	Experimental	0.40	Normal
Shapiro-Wilk (Pre-test)	Control	0.45	Normal
Shapiro-Wilk (Post-test)	Experimental	0.05	Normal
Shapiro-Wilk (Post-test)	Control	0.10	Normal

Based on the criterion that data are normally distributed when the significance value is greater than 0.05, the results indicate that both pre-test and post-test scores in the experimental and control groups were normally distributed. Although the post-test score of the experimental group was at the threshold value ($p = 0.05$), it was still considered acceptable for parametric analysis. Therefore, the normality assumption for ANCOVA was satisfied.

Homogeneity of Variance

Homogeneity of variance was examined using Levene’s test on the post-test scores with group as the factor. This test checks whether the score variance differs significantly between groups.

Table 5. Result of Homogeneity of Variance Test (Levene’s Test)

Test	Sig. Value	Interpretation
Levene’s Test	0.31	Homogeneous

In Levene’s test, the null hypothesis states that the variances of the groups are equal. A significance value greater than 0.05 indicates no statistically significant difference in variance between groups. Since the obtained significance value (0.31) is higher than 0.05, the null hypothesis is not rejected. This means that the variance of scores between the experimental and control classes is statistically similar, and the homogeneity of variance assumption is satisfied.

Homogeneity of Regression Slopes

The homogeneity of regression slopes assumption was tested by including an interaction term between pre-test score and group in the general linear model. This test determines whether the relationship between the covariate and the dependent variable differs across groups.

Table 6. Test of Homogeneity of Regression Slopes

Source	F	Sig.	Interpretation
Method x PreTest	1.722	0.195	Assumption Met

In testing the homogeneity of regression slopes, the null hypothesis states that there is no interaction between the group and the covariate (pre-test score). A significance value greater than 0.05 indicates that the interaction effect is not statistically significant. In this study, the interaction term was not statistically significant ($F = 1.722$, $p = .195$), indicating that higher than 0.05. Therefore, the null hypothesis is not rejected, meaning that the relationship between pre-test and post-test scores does not differ significantly across groups. This confirms that the assumption of homogeneous regression slopes is met.

Hypothesis Testing Using ANCOVA

After all assumptions were fulfilled, ANCOVA was conducted to determine whether there was a statistically significant difference in post-test speaking fluency scores between the experimental and control classes after controlling for pre-test scores. In this analysis, the post-test score was treated as the dependent variable, the instructional treatment as the fixed factor, and the pre-test score as the covariate. The ANCOVA results are presented in Table 7.

Table 7. ANCOVA Result on Post-Test Speaking Fluency Scores

Source	df	Mean Square	F	Sig.	Partial Eta Squared
Method	1	471.634	22.456	0.000	0.290
PreTest (Covariate)	1	2492.104	118.656	0.000	0.683
Method x PreTest	1	36.167	1.722	0.195	0.030
Error	55	21.003			

The ANCOVA results indicate that the instructional method had a statistically significant effect on students' post-test speaking fluency after controlling for pre-test scores ($F = 22.456$, $p < .001$). This finding confirms that the difference in post-test performance between the two groups was not merely influenced by initial speaking ability but was associated with the instructional treatment implemented during the study. Students who were taught using the shadowing technique demonstrated significantly higher post-test speaking fluency scores compared to those who received conventional classroom instruction. Therefore, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) was accepted.

In addition, the pre-test scores showed a statistically significant effect on post-test performance ($p = 0.000$), indicating that students' initial speaking ability played an important role in determining their final outcomes. However, the interaction between method and pre-

test was not significant, confirming that the treatment effect was consistent across different levels of initial speaking ability. The partial eta squared value for the method variable ($\eta^2_p = 0.290$) indicates a large effect size, suggesting that the shadowing technique had a substantial practical impact on students' speaking fluency. A partial eta squared value of 0.290 indicates that approximately 29% of the variance in post-test speaking fluency scores can be explained by the instructional method after controlling for pre-test scores. In the context of classroom-based educational research, this represents a considerable practical contribution, suggesting that the shadowing technique does not merely produce statistically detectable improvement but also yields meaningful pedagogical impact.

The findings of this study show that students who were taught using the shadowing technique achieved significantly higher post-test scores after controlling for pre-test differences through ANCOVA compared to those who received conventional classroom instruction. After controlling for the differences in pre-test scores through ANCOVA, the effect of the instructional treatment remained statistically significant. This indicates that the improvement observed in the experimental class cannot simply be attributed to their initial level of speaking ability, but is closely related to the instructional treatment they experienced during the research period.

These findings can be better understood when viewed in relation to the theoretical framework discussed in Chapter II. Speaking fluency in this study is conceptualized as a multidimensional construct involving temporal smoothness, repair behavior, and perceptual naturalness, as discussed by Segalowitz (2010) and Huensch and Tracy-Ventura (2017). The substantial increase in the experimental class's mean score, along with the reduction in score dispersion, suggests improvement, particularly in temporal and perceptual aspects of fluency. Students appeared able to maintain speech more continuously with fewer breakdowns, which reflects greater processing efficiency and smoother delivery.

From the perspective of Automaticity Theory, fluency develops when linguistic retrieval and articulation shift from controlled to more automatic processing. Segalowitz (2010) and Skehan (2009) argue that repeated, meaningful practice under time pressure facilitates this transition. Shadowing requires learners to repeat spoken input almost simultaneously, which minimizes opportunities for excessive monitoring and encourages rapid lexical and syntactic retrieval. The significant effect found in the ANCOVA analysis supports the theoretical claim that structured, time-constrained repetition can accelerate proceduralization of language knowledge. In this sense, the improvement observed in the experimental class is consistent with the notion that automatization underlies fluent performance.

The findings also resonate with the Input–Output and Noticing perspectives discussed in Chapter II. Krashen's view of comprehensible input emphasizes the importance of meaningful auditory exposure, while Swain highlights the role of output in consolidating linguistic knowledge. Shadowing combines these two processes in a single activity. Students first process the input and then immediately reproduce it, which likely increases their awareness of pronunciation, rhythm, and lexical patterns. This mechanism aligns with Schmidt's idea that noticing is a necessary condition for acquisition. The observed fluency gains suggest that this tight linkage between input and output contributes to deeper internalization of spoken language patterns.

Empirical findings from previous studies further strengthen this interpretation. Hamada (2016) reported that Japanese EFL learners who engaged in regular shadowing demonstrated measurable improvement in speaking fluency, particularly in speech rate and pause reduction. Similarly, previous empirical research discussed in Chapter II has also documented gains in temporal fluency after systematic shadowing practice.

Beyond cognitive processing, affective factors may also help explain the results. Krashen's Affective Filter Hypothesis proposes that lower anxiety and higher confidence facilitate language performance. During the implementation of the instructional treatment, students in the experimental class were not required to generate original ideas spontaneously but were guided by a model. This structured support may have reduced performance anxiety and cognitive overload, allowing students to focus more on pronunciation, rhythm, and speech continuity rather than idea formulation. As a result, students may have experienced lower psychological pressure during speaking practice. Such conditions are consistent with Krashen's Affective Filter Hypothesis, which suggests that reduced anxiety facilitates more effective language performance. The observed improvement in fluency may therefore reflect not only cognitive automatization but also a more supportive and less threatening learning environment.

Classroom observation during the treatment sessions also provides contextual insight into these findings. At the beginning of the implementation, several students appeared hesitant and struggled to synchronize their speech with the audio model. However, as sessions progressed, students demonstrated increased confidence and smoother articulation. The repeated exposure to structured oral modeling appeared to help them adapt gradually to the demands of continuous speech production. This observable behavioral shift corresponds with the reduction in score dispersion reflected in the post-test results, suggesting that improvement was not limited to high-performing students but occurred across different ability levels.

In contrast, the control class showed only modest improvement. Conventional speaking activities provide practice opportunities, yet they may not consistently impose the same level of sustained, time-pressured oral production. Without intensive repetition and immediate modeling, learners may continue to rely heavily on conscious grammatical monitoring, which can slow down speech production. This difference in task demand helps explain why the experimental class achieved significantly higher post-test scores after statistical control of initial ability.

Overall, the findings of this study are in line with the theoretical assumptions and empirical research reviewed in Chapter II. Rather than standing alone, the results reflect patterns that have also been observed in previous investigations of shadowing and fluency development. The results provide further support for the view that shadowing facilitates fluency development through interconnected cognitive, linguistic, and affective mechanisms. Within the context of Indonesian secondary EFL classrooms, the technique appears to function as a practical embodiment of automaticity, input-output integration, and reduced affective barriers, leading to measurable improvement in students' speaking fluency.

CONCLUSION

This study aimed to determine whether the shadowing instructional treatment significantly affects the speaking fluency of 11th-grade students at State of Senior High School 1 Bambanglipuro. Based on the results of the statistical analyses presented in Chapter IV, a statistically significant difference was found between the experimental class and the control class after controlling for pre-test scores. The significance value obtained from the ANCOVA test was below 0.05, indicating that the null hypothesis is rejected and the alternative hypothesis is accepted. Therefore, it can be concluded that the implementation of the shadowing instructional treatment significantly improves students' speaking fluency within the context of this study. The findings show that students who received the shadowing instructional treatment achieved significantly higher post-test scores after controlling for pre-test differences through ANCOVA compared to those who received conventional classroom instruction. This indicates that the improvement in speaking fluency is associated with the instructional treatment administered during the research period. The magnitude of improvement observed in the experimental group further indicates that the shadowing instructional treatment was not only statistically significant but also educationally meaningful. The substantial increase in mean scores, combined with a large effect size, suggests that shadowing can serve as an effective pedagogical strategy for promoting more fluent and confident oral performance among secondary EFL learners. Within the context of this study, the integration of structured repetition and immediate oral reproduction appears to facilitate both cognitive automatization and affective readiness for speaking.

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