

The Effect of Shadowing Technique on Students' Pronunciation Ability at Grade X Man Insan Cendekia Tapanuli Selatan

Putri Anggita Harahap ¹

¹ Universitas Muhammadiyah Tapanuli Selatan, Padangsidimpuan

Article Info	Abstract
Article history: Received 11 Juni 2026 Revised 17 Juni 2026 Accepted 24 September 2026 Keywords: EFL; intonation; pronunciation ability; shadowing technique; word stress	This study investigates the effect of the shadowing technique on students' pronunciation ability at Grade X MAN Insan Cendekia Tapanuli Selatan. A quasi-experimental pretest-posttest control group design was employed with 44 tenth-grade students divided into an experimental class (X IPAS 1, n=22) receiving shadowing instruction and a control class (X IPAS 2, n=22) using the drill technique. Data were analyzed through Shapiro-Wilk normality test, Levene homogeneity test, intraclass correlation coefficient (ICC), and paired samples t-test using SPSS. The experimental group's mean score improved from 5.82 to 7.11 (a gain of +1.30 points), while the control group improved by only 0.32 points. The t-test confirmed statistical significance ($t=5.952$, $df=43$, $p=0.000$), demonstrating that the shadowing technique significantly improved students' pronunciation, particularly in word stress and intonation patterns. The study concludes that English teachers in EFL settings should consider integrating shadowing into their pronunciation instruction.

Corresponding Author: Putri Anggita Harahap, putrianggitaahrp@gmail.com

1. Introduction

Pronunciation is a crucial component of speaking ability that significantly influences the clarity and effectiveness of oral communication. According to Levis (2020), pronunciation remains a critical yet often neglected component of language teaching, despite its direct impact on intelligibility and successful communication. Poor pronunciation can create barriers to effective interaction, even when learners possess strong grammatical and lexical knowledge. Foote and Trofimovich (2021) noted that teachers tend to prioritize grammar and vocabulary over pronunciation, contributing to long-term communication difficulties for learners.

In Indonesian EFL contexts, teaching and learning pronunciation face several persistent challenges. Students frequently struggle with English sounds that do not exist in their native language, such as /θ/, /ð/, /v/, and various vowel distinctions. The limited exposure to authentic English pronunciation outside the classroom, combined with the predominance of mechanical drilling methods, appears insufficient to bridge the gap between curricular expectations and actual classroom performance. Thomson and Derwing (2023) confirmed that learners with pronunciation problems remain difficult to understand despite having good grammar and vocabulary.

Preliminary observations at MAN Insan Cendekia Tapanuli Selatan revealed that a substantial number of tenth-grade students continue to struggle with basic pronunciation tasks. Many students frequently mispronounce common English words, confuse phonetically similar sounds, and exhibit limited awareness of intonation patterns—often applying a flat or monotone delivery that reduces the naturalness and intelligibility of their speech. This gap between curricular expectations and actual phonological performance underscores the urgency of identifying more effective pronunciation teaching techniques.

The shadowing technique has gained considerable attention as a promising method for pronunciation development. Shadowing is a language learning method in which learners listen to audio material and simultaneously repeat what they hear as accurately as possible, attempting to match the pronunciation, intonation, rhythm, and speed of the speaker (Zahran & Owusu, 2020). The technique originated in

interpreter training and was subsequently adapted for language learning due to its capacity to engage multiple linguistic processing mechanisms simultaneously. According to Hamada (2018), shadowing can improve pronunciation by encouraging learners to attend closely to features of speech such as phonemes, stress, and intonation while training articulatory muscle memory through near-simultaneous repetition.

Previous studies provide empirical support for the effectiveness of the shadowing technique. Petalolo, Kaseng, and Hamra (2024) demonstrated that students who received shadowing instruction showed significantly greater improvement in pronunciation accuracy, particularly in suprasegmental features such as stress, intonation, rhythm, and tempo. Sugiarto et al. (2020) found that the shadowing technique had a positive and significant impact on both segmental and suprasegmental features of pronunciation. Galeas, Rivadeneira, and Santos (2023) further reported that the technique not only improved pronunciation but also enhanced students' confidence and motivation in speaking English.

However, three critical research gaps remain in the existing literature. First, most prior studies on shadowing have targeted university-level students or pre-service teachers, with very limited empirical research specifically focused on senior high school students in Indonesian EFL contexts. Second, rigorous quasi-experimental studies comparing shadowing directly with the conventional drill technique remain scarce at the secondary school level in Indonesia. Third, few studies have specifically measured suprasegmental features—namely word stress and intonation—using standardized assessment instruments in Indonesian secondary school settings. This study addresses these gaps by investigating whether the shadowing technique can significantly improve pronunciation ability compared to the conventional drill technique among Grade X students at MAN Insan Cendekia Tapanuli Selatan.

2. Method

This study employed a quantitative approach with a quasi-experimental pretest-posttest control group design. This design was selected because the researcher could not randomly assign individual students to groups; instead, intact classes were assigned to either the experimental or the control condition. The study was conducted at MAN Insan Cendekia Tapanuli Selatan during the even semester of the 2024/2025 academic year.

The population comprised all tenth-grade students at MAN Insan Cendekia Tapanuli Selatan (four classes: X IPAS 1 through X IPAS 4). Using cluster random sampling—a technique that selects groups rather than individuals (Creswell & Creswell, 2023)—two classes were randomly assigned: Class X IPAS 1 (n=22) as the experimental group receiving shadowing instruction, and Class X IPAS 2 (n=22) as the control group receiving conventional drill-based instruction. The total sample comprised 44 students aged 15-16 years, all Indonesian native speakers learning English as a foreign language.

The research instrument consisted of an oral test (read-aloud task) using two descriptive texts: "My Morning Routine" for the pre-test and "Food and Eating Habits" for the post-test. Both texts were selected for their comparable difficulty level and their inclusion of target suprasegmental features. Students were assessed by two independent raters using a five-point rating scale evaluating word stress (1-5) and intonation (1-5), with a maximum total score of 10. The scoring rubric was adapted from Ma et al. (2017). Instrument validity was established through expert judgment by two experienced English education lecturers.

The experimental treatment consisted of four instructional sessions following a systematic shadowing procedure: (1) initial listening to audio materials, (2) guided shadowing with teacher feedback, (3) independent shadowing without transcript support, and (4) self-recording and comparison with the native speaker model. The control group received conventional drill-based instruction during the same period. Each session lasted 90 minutes.

Data were analyzed through four sequential statistical procedures using SPSS: (1) Shapiro-Wilk normality test—appropriate for samples under 50—to verify normal distribution; (2) Levene's test for homogeneity of variance between groups; (3) Intraclass Correlation Coefficient (ICC) using a two-way mixed effects model with absolute agreement to assess inter-rater reliability; and (4) Paired Samples T-Test as the primary inferential test to determine whether the difference between pre-test and post-test scores was statistically significant ($p < 0.05$).

3. Results

Pre-test and Post-test Score Description

The study was conducted over five meetings beginning with the pre-test on April 20, 2025. Table 1 presents a summary of the descriptive statistics for both groups.

Table 1. Summary of Pre-test and Post-test Scores

Group	Mean Pre-test	Mean Post-test	Mean Gain	SD (Pre/Post)
Experimental (Shadowing)	5.82	7.11	+1.30	1.39 / 1.31
Control (Drill)	7.20	7.52	+0.32	1.52 / 1.47

Table 1 reveals a substantial difference in score gains between the two groups. The experimental group improved by 1.30 points on average (from 5.82 to 7.11), while the control group improved by only 0.32 points (from 7.20 to 7.52). The slight decrease in standard deviation within the experimental group (from 1.39 to 1.31) indicates that student scores became more uniform after the intervention, suggesting that the shadowing technique produced a consistent positive effect across the majority of participants. The highest individual gain was achieved by Student E11 (+3.00 points), while only one student (E1) experienced a decrease (-1.50 points).

Prerequisite Tests: Normality and Homogeneity

The Shapiro-Wilk normality test yielded significance values above 0.05 for all datasets: experimental pre-test (Sig.=0.251), control pre-test (Sig.=0.092), experimental post-test (Sig.=0.053), and control post-test (Sig.=0.387). Since all values exceed the 0.05 threshold, the data are considered normally distributed (Ghasemi & Zahediasl, 2012), confirming the appropriateness of parametric statistical analysis.

Levene's homogeneity test produced significance values of 0.346 (pre-test) and 0.463 (post-test), both exceeding the 0.05 criterion. These results confirm that the variance between the experimental and control groups was homogeneous prior to and following the intervention. This is a critical condition in quasi-experimental research, as it ensures that post-treatment differences are attributable to the instructional method rather than initial group differences in variance.

Inter-rater Reliability (ICC)

The ICC analysis on post-test data yielded a single-measures ICC of 0.340 and an average-measures ICC of 0.507, with a significance value of 0.011 ($p < 0.05$). According to Koo and Li (2016), an ICC value between 0.50 and 0.75 indicates moderate reliability, which is acceptable in educational research—particularly for subjective assessments such as pronunciation scoring. The significant p-value confirms that agreement between the two raters was not due to chance. The use of two independent raters in this study was an appropriate measure to minimize assessment bias, as individual perceptions of stress and intonation can vary.

Hypothesis Testing: Paired Samples T-Test

Table 2. Paired Samples T-Test Results

Comparison	Mean Difference	t-value	df	Sig. (2-tailed)
Experimental vs. Control	0.852	5.952	43	0.000*

* Significant at $p < 0.05$

Table 2 presents the results of the Paired Samples T-Test. The significance value (Sig. 2-tailed) of 0.000 is smaller than 0.05, with $t=5.952$ and $df=43$. These results lead to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a). It can therefore be concluded that the shadowing technique had a statistically significant effect on students' pronunciation ability at Grade X MAN Insan Cendekia Tapanuli Selatan, compared to conventional drill instruction.

The significant improvement observed in the experimental group can be explained through the inherent learning mechanisms of shadowing. Unlike passive listening or mechanical repetition, shadowing requires learners to process and produce language simultaneously in real time, thereby training articulatory muscle

memory and developing prosodic awareness that is difficult to acquire through conventional methods (Hamada, 2018). The forced synchronization with the audio model compels learners to adopt the tempo, stress patterns, and intonation contours of native speech, accelerating the internalization of suprasegmental features.

These findings align with Petalolo et al. (2024), who demonstrated that shadowing instruction produced significantly greater improvement in pronunciation—particularly in suprasegmental features such as stress, intonation, rhythm, and tempo—compared to traditional methods. Similarly, Sugiarto et al. (2020) confirmed that the shadowing technique positively impacted both segmental and suprasegmental aspects of pronunciation. Galeas et al. (2023) further reported that shadowing not only improved pronunciation accuracy but also enhanced students' confidence and motivation to speak English, consistent with observations during the treatment sessions in the present study.

Common pronunciation difficulties observed throughout the treatment sessions included: (1) placing correct word stress in multisyllabic words; (2) producing appropriate intonation patterns in statements and questions; and (3) distinguishing English phonemes absent in the Indonesian phonological system, such as /θ/, /ð/, and vowel distinctions like /ɪ/ and /æ/. While the experimental group demonstrated significant improvement after the shadowing intervention, some students still required additional practice to achieve consistent pronunciation accuracy, particularly in the more challenging segmental contrasts.

4. Conclusion

Summary of Findings

Prior to the intervention, both groups demonstrated developing pronunciation proficiency with notable deficiencies in word stress and intonation. The experimental class recorded a mean pre-test score of 5.82 (SD=1.39) and the control class 7.20 (SD=1.52), indicating that neither group had achieved optimal phonological accuracy before the treatment began.

The Paired Samples T-Test confirmed a statistically significant effect of the shadowing technique on students' pronunciation ability ($t=5.952$, $df=43$, $p=0.000$), with the experimental group gaining an average of +1.30 points compared to only +0.32 points in the control group. The null hypothesis is therefore rejected, and it is concluded that the shadowing technique significantly outperforms conventional drill instruction in developing word stress and intonation among Grade X EFL students.

Recommendations

English teachers at MAN Insan Cendekia Tapanuli Selatan and comparable institutions are encouraged to incorporate shadowing activities into their pronunciation instruction, ideally combined with explicit teaching of suprasegmental features to maximize learning outcomes. Students are advised to practice shadowing independently using authentic audio materials such as podcasts and English language videos, as the technique is well-suited to self-directed learning. School administrators should ensure adequate audio equipment and digital resource access to support implementation. Future researchers are recommended to investigate shadowing with larger samples, extended treatment periods, and broader pronunciation indicators, as well as to explore its integration with technology-assisted language learning environments.

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