



THE EFFECTIVENESS OF SHADOWING TECHNIQUE IN ENHANCING PRONUNCIATION SKILL OF EIGHTH GRADE STUDENT AT SMP NEGERI 8 GORONTALO

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ABSTRACT

This study investigates the effectiveness of the shadowing technique in improving word-stress pronunciation of eighth-grade students at SMP Negeri 8 Gorontalo. Using a one-group pretest–posttest quantitative design, thirty-two students (class VIII-2) participated in six scaffolded shadowing sessions. Pronunciation performance on a 10-item word list was recorded and scored using the Speakometer application; pretest and posttest scores were subsequently analyzed with a paired-samples t-test. Results indicate a substantial improvement in mean scores from 37.65 (SD = 11.29) at pretest to 70.03 (SD = 11.90) at posttest, and the difference was statistically significant (paired t, $p = .000$), supporting the alternative hypothesis that shadowing significantly enhances word-stress accuracy. Classroom observations suggested that gains stemmed from improved stress placement, clearer vowel reduction in unstressed syllables, and greater prosodic automaticity following graded practice and peer/teacher feedback. While limitations include the single-group design, single-class sample, and short intervention window, findings suggest that teacher-guided shadowing combined with app-based feedback is a practical and effective method for addressing word-stress issues in EFL middle-school contexts. Implications for pedagogy and directions for controlled, larger-scale studies are discussed.

Keywords: Shadowing Technique, Word Stress, Pronunciation Instruction, Speakometer, EFL, Middle School Students

A. INTRODUCTION

Pronunciation is a set of habits of producing sounds. The habit of producing a sound is acquired by repeating it over and over again by being corrected when its pronounced wrongly (Cook, 2001). In many EFL settings, Indonesian middle-school learners routinely experience difficulties with suprasegmental features, especially correct placement of lexical stress, which in turn reduces overall comprehensibility and learner confidence (Royani, 2023; Tiwari, 2024). Limited classroom time for pronunciation, L1 interference, and scarce exposure to authentic input exacerbate these problems in lower-resource contexts (Derwing & Munro, 2015). These



practical constraints make scalable classroom interventions that emphasize repeated listening–speaking coupling and rapid corrective feedback particularly valuable for improving students’ pronunciation outcomes.

In the context of SMP Negeri 8 Gorontalo, English pronunciation particularly word stress remains a persistent challenge for eighth-grade students. Based on an interview with one of the English teachers at the school, classroom observations and preliminary assessments indicate that most learners struggle to place lexical stress accurately, resulting in unclear and unnatural speech production. Only a small proportion of students demonstrate acceptable pronunciation accuracy, suggesting that suprasegmental features have not been sufficiently internalized. These difficulties are compounded by limited student motivation toward English learning, weak phonetic foundations, and strong first-language interference, as Indonesian phonological patterns differ substantially from English stress-timed rhythm.

Furthermore, pronunciation instruction in regular classroom practice is constrained by limited instructional time, large class sizes, and a lack of varied and effective pronunciation-focused teaching techniques. Students also receive minimal exposure to authentic English input, reducing opportunities to model accurate stress patterns. Psychological factors such as low confidence, fear of making mistakes, and speaking anxiety further inhibit active oral practice. Together, these conditions highlight the need for a practical, engaging, and structured instructional approach that can effectively address word-stress pronunciation difficulties within the constraints of a public middle-school EFL setting.

Recent empirical work has investigated a range of guided practice methods aimed at improving suprasegmental accuracy. Among these, the shadowing technique defined as immediate, near-simultaneous repetition of a spoken model has attracted attention for its potential to strengthen auditory-motor mapping, heighten prosodic sensitivity, and promote automaticity in speech production (Hamada, 2011). Several studies report positive effects of shadowing on learners’ pronunciation and prosody: quasi-experimental and classroom studies have found improvements in stress placement, intonation, and fluency after scaffolded shadowing interventions (Jalilvand & Ghafournia, 2023; Leonisa, 2020; Setiawan, 2024; Tuyet & Huong, 2022).



Internationally, evidence indicates that shadowing can outperform conventional repetition or drilling in areas such as word stress and sentence rhythm (Hamada, 2019). Nonetheless, many prior investigations have concentrated on older students (senior high / university) or on broad measures of pronunciation rather than isolating lexical stress as a target feature (Leonisa, 2020; Setiawan, 2024). Moreover, the majority of studies were carried out in contexts with relatively greater exposure to English media and technological resources, leaving open questions about shadowing's effectiveness in lower-exposure, public middle-school environments.

Building on this literature, the present study addresses two linked gaps. First, it narrows the empirical focus to word-stress specifically a suprasegmental component that is crucial for intelligibility but often overlooked in intervention studies that report only aggregated pronunciation scores. Second, it tests the method with middle-school learners in a lower-exposure public school (SMP Negeri 8 Gorontalo), using an AI-assisted scoring tool (Speakometer) to provide consistent, objective feedback and measurement. By concentrating on lexical stress and combining scaffolded shadowing with app-based feedback, the study aims to determine whether shadowing produces measurable, replicable gains in a context where resources and incidental exposure are limited a setting underrepresented in the current state of the art (Datawide Ltd., 2025; Jalilvand & Ghafournia, 2023).

The objective of this article is to evaluate empirically the effectiveness of a six-session, scaffolded shadowing intervention for improving lexical stress among eighth-grade learners at SMP Negeri 8 Gorontalo, using Speakometer scores (0–100) as the primary quantitative outcome measure. The study further aims to discuss pedagogical implications for pronunciation teaching in similar low-exposure EFL classrooms and to recommend directions for larger-scale or controlled follow-up research.

B. THEORETICAL FRAMEWORK

Definition of Pronunciation

Pronunciation is a set of habits of producing sounds. The habit of producing a sound is acquired by repeating it over and over again by being corrected when its pronounced wrongly (Cook,



2001). Cook explains that L2 pronunciation often reflects an interlanguage system influenced by the L1, rather than direct imitation of native norms, leading to persistent foreign accents even in advanced learners. Gender-specific patterns emerge quickly, such as men's tendency toward /ɪn/ versus women's /ɪŋ/ in English -ing forms (Cook, 2001).

Pronunciation is defined as the production of the sounds and supra-segmental features used in particular languages and language varieties, with particular emphasis on aspects concerned with how sounds are perceived by listeners rather than just how they are physically articulated (Richards & Schmidt, 2010). The dictionary differentiates pronunciation from articulation the physiological mechanics of sound formation and phonetics, the scientific study of speech sounds, while cross-referencing it to accent (regional or social sound patterns) and intonation (pitch variations conveying meaning) (Richards & Schmidt, 2010).

Pronunciation in EFL Learning

Pronunciation constitutes a fundamental component of spoken language competence in English as a Foreign Language (EFL). It directly affects intelligibility, comprehensibility, and communicative effectiveness, particularly in oral interaction (Celce-Murcia et al., 2010). Pronunciation involves two major components: segmental features, which include individual vowel and consonant sounds, and suprasegmental features, which include stress, rhythm, and intonation. While segmental accuracy contributes to sound-level clarity, suprasegmental features play a more decisive role in conveying meaning and ensuring listener understanding in continuous speech (Derwing & Munro, 2015).

Recent studies advocate for innovative, learner-centered approaches such as explicit phonetic drills, audio-visual feedback tools, and task-based activities that prioritize intelligibility over native-like accuracy, fostering greater confidence and real-world communication skills. Teachers' beliefs also play a key role, with research showing that integrating pronunciation across all four skills rather than isolating it leads to measurable gains in fluency and comprehension for EFL students (Almalki & Algethami, 2022; Mahmood, 2024; Nguyen et al., 2021).



In many EFL contexts, including Indonesian classrooms, pronunciation instruction tends to focus disproportionately on segmental elements, often neglecting suprasegmental features due to time constraints, lack of teacher confidence, or limited instructional resources (Royani, 2023). As a result, learners may produce grammatically correct utterances that remain difficult to understand due to incorrect stress placement or unnatural rhythm. This imbalance underscores the need for instructional approaches that explicitly address suprasegmental pronunciation features at earlier stages of language learning.

Word Stress in English

Word stress refers to the relative prominence of one syllable over others within a multisyllabic word. This prominence is realized through a combination of increased loudness, longer duration, higher pitch, and clearer vowel quality (Roach, 1983). In English, word stress is phonemic, meaning that incorrect stress placement can change meaning, reduce intelligibility, or cause listener confusion (e.g., *PREsent* vs. *preSENT*).

For EFL learners, mastering English word stress is particularly challenging due to its irregular patterns and limited correspondence between spelling and pronunciation. Learners whose first language is syllable-timed, such as Indonesian, may struggle with stress-timed rhythm and the reduction of unstressed syllables common in English (Setiawan, 2024; Tiwari, 2024). These difficulties often result in evenly stressed syllables, unnatural rhythm, and reduced comprehensibility. Consequently, focused instruction on word stress is essential for improving learners' spoken intelligibility and overall pronunciation proficiency.

The Shadowing Technique

Kadota (2019) defines shadowing as a technique wherein learners track heard speech and repeat it back verbally in as exact a manner as possible while continuing to listen attentively to incoming messages. In *Shadowing as a Practice in Second Language Acquisition: Connecting Inputs and Outputs*, he frames it as an integrated input-output process originating from interpreter training, emphasizing real-time vocalization that synchronizes auditory perception



with articulatory production to enhance phonological processing without semantic mediation (Kadota, 2019). This approach leverages dual-task engagement simultaneous listening and shadowing to foster automaticity in L2 prosody and fluency.

The shadowing technique is a pronunciation and listening practice method in which learners repeat spoken input immediately or near-simultaneously after hearing a model. Originally developed in interpreter training, shadowing has been adapted for second and foreign language instruction due to its capacity to strengthen auditory perception, speech motor control, and prosodic awareness (Hamada, 2019).

From a cognitive perspective, shadowing promotes perception–production coupling, enabling learners to map acoustic input directly onto articulatory output with minimal delay. This rapid processing encourages automaticity and reduces reliance on conscious rule-based articulation (Hamada, 2019). Pedagogically, shadowing can be scaffolded from slower, segmented repetition toward natural-speed continuous speech, allowing learners to internalize stress patterns, rhythm, and intonation more effectively than traditional repetition drills.

Previous studies have demonstrated that shadowing improves various aspects of pronunciation, including fluency, intonation accuracy, and stress placement (Jalilvand & Ghafournia, 2023; Tuyet & Huong, 2022). Unlike isolated drilling, shadowing exposes learners to authentic prosodic patterns in context, making it particularly suitable for teaching suprasegmental features such as word stress.

Shadowing and Word-Stress Acquisition

The effectiveness of shadowing for word-stress acquisition can be explained through both phonological and psycholinguistic frameworks. Continuous exposure to correctly stressed lexical items allows learners to notice stress contrasts and internalize stress rules implicitly through repetition (Schmidt, 1990). Moreover, repeated shadowing practice reinforces vowel reduction in unstressed syllables and strengthens rhythmic timing, both of which are essential components of accurate stress realization in English (Hamada, 2019)



In classroom settings, guided shadowing combined with feedback has been shown to produce measurable improvements in learners' stress accuracy, especially when instruction is structured progressively and supported by modeling (Setiawan, 2024). These findings suggest that shadowing is not merely a listening exercise but a holistic pronunciation training technique that integrates perception, articulation, and prosodic awareness.

Technology-Assisted Pronunciation Assessment

Recent advances in educational technology have introduced AI-based tools capable of providing immediate pronunciation feedback. Applications such as Speakometer analyze learners' spoken input and generate quantitative scores, offering consistency and objectivity in pronunciation assessment (Datawide Ltd., 2025). When integrated into classroom instruction, such tools can complement teacher feedback by allowing learners to monitor their progress and engage in self-directed correction.

In the context of shadowing practice, technology-assisted assessment supports repeated practice cycles by supplying instant evaluative input, thereby reinforcing learning gains. Although AI-based scoring systems should not fully replace human judgment, they serve as valuable supplementary instruments for large classes and resource-limited settings.

C. METHOD

This study employed a quantitative pre-experimental one-group pretest–posttest design ($O_1 X O_2$) to examine the effect of a scaffolded shadowing intervention on students' word-stress pronunciation (Sugiono, 2012). No control group was used; the same cohort was measured before and after the treatment.

The study comprised eight meetings in total: one pretest session, six treatment sessions, and one posttest session. All meetings were conducted during the regular English class periods at SMP Negeri 8 Gorontalo, following the sequence Pretest → 6 × Shadowing Treatment → Posttest.



Both the pretest and posttest employed a ten-item word list targeting two- to four-syllable English words with predetermined stress patterns. While the first five items were identical in both tests, the final five words in the posttest were replaced with different lexical items that followed the same stress patterns. This modification was implemented to minimize memorization effects and to further examine whether students were able to transfer their word-stress knowledge to unfamiliar words. Participants' spoken productions were recorded under controlled classroom conditions using a smartphone, and each recording was scored with the Speakometer application. Individual test scores were calculated as the mean across the ten items.

Participants' spoken productions were recorded under controlled classroom conditions using a smartphone; each recording was scored with the Speakometer application, and an individual score was computed as the mean across the ten items. The intervention consisted of a scaffolded six-session shadowing program. Each session followed a structured routine: warm-up, teacher or native-model presentation, choral and individual shadowing (near-simultaneous repetition), paired/small-group practice with peer feedback, teacher corrective feedback, and brief consolidation/homework. Sessions were sequenced from shorter (two-syllable) to longer or affixed items, with gradual increases in repetition speed to foster perceptual–motor automaticity.

All score data were entered into SPSS for processing. Prior to hypothesis testing, distributions were examined for normality using Kolmogorov–Smirnov and Shapiro–Wilk tests; because the data met parametric assumptions, descriptive statistics (means, standard deviations, minima/maxima) were computed and a paired-samples t-test was employed to evaluate the pretest–posttest difference. It is recommended that the final manuscript also report complementary metrics such as effect size (e.g., Cohen's *d*) and 95% confidence intervals to aid interpretation and cross-study comparison.



D. FINDINGS AND DISCUSSION

Descriptive results

Pretest scores ($n = 32$) had a mean of 37.65 ($SD = 11.29$), while posttest scores had a mean of 70.03 ($SD = 11.90$). The distribution of scores shifted markedly upward after treatment, with most posttest values clustering roughly between 55 and 80. On average, students improved by approximately 32.38 points, indicating a large practical change in Speakometer-measured word-stress accuracy.

Normality, correlation, and inferential test

Normality tests returned non-significant results ($p > .05$), permitting parametric analysis. The paired samples correlation between pretest and posttest scores was $r = .766$ ($p = .000$), showing a strong positive association in individual ranking across tests. The paired-samples t-test indicated a statistically significant improvement from pretest to posttest (Sig. 2-tailed = .000, $df = 31$), supporting rejection of the null hypothesis and acceptance of the alternative hypothesis that the shadowing intervention improved word-stress performance.

Discussion

The quantitative results show that six scaffolded shadowing sessions, combined with app-based scoring and teacher/peer feedback, produced substantial gains in students' word-stress production. Three interacting mechanisms likely account for the observed improvement: (1) Auditory–motor coupling and automaticity. Immediate imitation (shadowing) accelerates mapping from perceived stress cues (duration, intensity, spectral quality) to articulatory gestures, helping learners produce more salient stressed syllables with less conscious effort. (2) Perceptual sharpening and vowel reduction. Repeated exposure to accurate models increased learners' sensitivity to the contrast between stressed and unstressed vowels, resulting in clearer vowel reduction in unstressed syllables and fuller quality in stressed syllables. (3) Guided practice plus immediate feedback. The combination of teacher monitoring, peer correction, and



Speakometer's objective scores created a feedback loop that helped students notice, attempt corrections, and consolidate gains across sessions. Technology here acted as a scalable scaffolding agent in a low-exposure context.

These findings align with prior research reporting shadowing-related improvements in suprasegmental aspects of L2 speech (Jalilvand & Ghafournia, 2023; Setiawan, 2024). while extending evidence to a middle-school, lower-exposure public school setting and isolating word stress as the target feature. The strong pre-post effect suggests that even relatively brief, well-structured shadowing practice can yield rapid pedagogical benefits for word-stress accuracy.

E. CONCLUSION

The scaffolded shadowing intervention, delivered across six sessions and combined with Speakometer scoring and teacher/peer feedback, produced a statistically and practically significant improvement in word-stress pronunciation among eighth-grade students at SMP Negeri 8 Gorontalo. Pretest mean = 37.65 (SD = 11.29) versus posttest mean = 70.03 (SD = 11.90); paired t-test Sig. (2-tailed) = .000 (df = 31). These findings support the conclusion that shadowing is an effective, feasible classroom technique for improving lexical stress in low-exposure EFL contexts.

Suggestions

For classroom practice

Teachers should integrate short, frequent shadowing cycles into regular lessons (model → choral shadowing → paired practice → individual checks), focusing explicitly on stress patterns across word classes. Where possible, combine shadowing with objective, immediate feedback tools (e.g., Speakometer) while also using teacher/expert listening checks to provide qualitative guidance.



For future research

Replicate the study with a control group (randomized or matched) and larger, multi-site samples to increase internal validity and generalizability. Use mixed methods: supplement app scores with blind human raters, acoustic measures (duration, intensity), and learner interviews to capture both quantitative gains and changes in awareness/strategy. Test longer interventions and delayed posttests to examine retention, and report effect sizes (Cohen's *d*) to aid cross-study comparisons.

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