

EXPLORING STUDENT PERCEPTIONS OF SHADOWING TECHNIQUE AS A SELF-DIRECTED PRONUNCIATION PRACTICE

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Abstract

This study explores the perceptions of English as a Foreign Language students regarding the shadowing technique to conduct self-directed pronunciation practice. Using a descriptive qualitative design, data were obtained through questionnaires and semi-structured interviews administered to 35 Universitas Negeri Semarang EFL students. From the coding process, three emergent themes were identified, namely: (1) perceived suitability of shadowing for self-directed pronunciation practice, (2) perceived improvement in pronunciation skills, and (3) challenges and coping strategies in independent shadowing. The results showed that students view shadowing as a flexible, practical, and autonomous means of learning that enables them to handle their own learning pace with the help of online media. They reported improvements in pronunciation accuracy, recognition of vowels and consonants, and mastery of suprasegmental aspects such as intonation, stress, and rhythm. Challenges also emerged, such as fast native speaker input and limited feedback, which they addressed by adjusting audio speed, recording themselves, and using online dictionaries. Overall, shadowing was perceived not only as a tool for improving pronunciation but also as a means of fostering learner autonomy and metacognitive awareness.

Keywords: Shadowing Technique, Pronunciation, Self-directed, Student Perception, EFL

INTRODUCTION

Pronunciation is one of the challenging aspects of the English language acquisition process. Students need to have phonological awareness, the ability to distinguish sounds accurately, and control their speech organs in order to produce sounds accurately. In this case, pronunciation covers two main aspects, namely segmental and suprasegmental (Wang, 2022). The segmental aspect involves the clear pronunciation of vowels and consonants so that words can be recognized correctly. While the suprasegmental aspect involves the use of rhythm, stress, and intonation to convey meaning naturally (Yenkimaleki & Heuven, 2021). These two aspects are often influenced by the student's mother tongue and cultural background, making mastering English pronunciation a challenge in itself (Sugiarto et al., 2020). Therefore, pronunciation remains the biggest obstacle in speaking skills, mainly due to limited teaching time in class, lack of feedback, and ineffective pronunciation practice strategies (Sharma, 2021). As a result, pronunciation errors often cause communication problems, misunderstandings, and lower students' confidence in speaking English.

One strategy that is considered effective in overcoming this problem is the shadowing technique. Shadowing is a technique in which learners immediately imitate the speech of native speakers or audio input without pause by imitating their intonation, rhythm, accent, and pronunciation (Hamada, 2019). Originally, this technique was developed to train interpreters, but it has since been widely used in language learning because it has been proven to improve

segmental and suprasegmental aspects as well as fluency (Lambert, 1992). In today's digital age, shadowing has become increasingly relevant due to the availability of authentic materials such as podcasts, audiobooks, YouTube, and short online videos from various social media platforms that can be accessed at any time. This convenience makes shadowing consistent with the principles of self-directed learning, which encourages independence, responsibility, and self-regulation, while also allowing students to practice flexibly outside the classroom and play a more active role in developing their pronunciation skills (Foote & McDonough, 2017).

Previous studies have shown that shadowing techniques are effective in improving pronunciation, both segmental and suprasegmental aspects. Experimental studies have shown significant improvements in vowel and consonant sounds (Ardana et al., 2023; Sari & Jaya, 2025; Subagja et al., 2024; Zambrano et al., 2025) as well as intonation, stress, and rhythm (Elesery, 2021; Maldy et al., 2025; Phan et al., 2024). Other studies have also found general improvements in fluency and confidence (Duong, 2025; Jalilvand & Ghafournia, 2023; Phuong & Ngoc, 2023; Utami & Morganna, 2022). With digital developments, shadowing is increasingly being combined with technologies such as mobile-assisted learning, text-to-speech AI, metaverse platforms, and other online media (Barkov, 2022; Jin, 2023; Mu & Wasuntarasophit, 2025; Pratama & Isnaini, 2024; Zakarneh et al., 2025).

In addition to effectiveness, several studies highlight students' generally positive perceptions through increased motivation, self-confidence, and learning experiences (Arbain et al., 2023; Head & Yamane, 2022; Nguyet & Phuong, 2024; Pratama & Isnaini, 2024) despite challenges such as input speed and boredom also being found. Other studies also reinforce the effectiveness of shadowing, particularly in terms of intelligibility, fluency, and prosody, but note that segmental results still vary (El Moussaoui, 2025; Whitworth & Rose, 2025). Thus, previous studies have emphasized quantitative results through the effectiveness of shadowing techniques in improving pronunciation, with some showing students' perceptions of shadowing techniques quantitatively, while qualitative explorations of students' perceptions are still limited, especially in the context of self-directed learning in pronunciation. This study aims to fill this gap by examining students' perceptions of the shadowing technique as a self-directed pronunciation practice. This research has implications not only for resolving the literature gap regarding students' qualitative perceptions of shadowing as a self-directed pronunciation practice but also for offering pedagogical implications to EFL educators. The findings are expected to provide insight into how shadowing can effectively be integrated into pronunciation teaching and autonomous learning frameworks, particularly in technology-enhanced learning environments.

METHOD

This study used a descriptive qualitative design that was intended to examine EFL students' perceptions of the use of the shadowing technique as self-directed learning for pronunciation practice. This design was chosen because it was in line with the research objectives, which emphasized a deep understanding of the respondents' experiences and views.

The research participants consisted of 35 EFL students from the English Education Study Program at Universitas Negeri Semarang. Of these, 30 were female and 5 were male, and 7 were selected purposely for interviews based on the variation of their questionnaire responses to ensure diverse perspectives. The students involved ranged in age from 18 to 23

years old from semesters 1 to 7, so the sample representation included students with varying levels of academic experience. All participants were selected through purposive sampling with the criteria that they had at least one month of experience using the shadowing technique with a practice frequency of one to three times per week. This experience could be gained through various authentic media such as YouTube, podcasts, short videos, and audio recordings of lessons. These criteria were set so that the participants involved were truly relevant to the research objectives, namely, to provide a realistic picture of their experiences in applying shadowing as an independent learning practice.

Data collection was conducted in two stages. The first stage used a closed-ended questionnaire consisting of eighteen statements on a 1–5 Likert scale adapted from Phan et al., (2024), which was modified to suit the context of self-directed pronunciation learning and to obtain a general picture of students' perceptions of the use of the shadowing technique. The interpretation of the mean score from the questionnaire responses followed the interval classification shown in Table 1. This interpretation helped categorize students' perceptions into specific qualitative levels (from very low to very high), providing an overview of general tendencies in students' responses.

Table 1. Interval Classification for Questionnaire Interpretation

Mean Score Range	Category
1.00–1.79	Very Low
1.80–2.59	Low
2.60–3.39	Moderate
3.40–4.19	High
4.20–5.00	Very High

Based on the questionnaire results, thirty-five respondents were grouped according to their dominant scores on the Likert scale (5–1). Prior to the data collection, the instrument's validity was established through expert judgment by an ELT and pronunciation specialist, while its reliability was supported by the original study's Cronbach's Alpha of .886. Additionally, a pilot study with five participants confirmed that the adapted items were clear and appropriate for the research context. From this group, seven participants were selected for interviews using criterion-based purposive sampling, with a composition of two participants dominant at 5, two dominant at 4, one dominant at 3, one dominant at 2, and one dominant at 1 (or who had chosen 1–2). This selection aimed to represent a wider variation in students' perceptions of shadowing practices as a self-directed pronunciation practice.

The second stage was semi-structured interviews to obtain more in-depth qualitative insights. Interviews were conducted online with open-ended questions that explored students' perceptions of the shadowing technique as self-directed pronunciation practice in more depth. The interview data were transcribed and analyzed using thematic analysis, focusing on the research questions formulated in this study. All participants were informed about the purpose of the study and voluntarily agreed to participate. Research ethics were maintained by ensuring the confidentiality and anonymity of participants' personal data.

FINDINGS AND DISCUSSION

Findings

The findings of this study explored students' perceptions of the shadowing technique as a self-directed pronunciation practice. The closed-ended questionnaire data were presented through means and percentages. To ensure an objective interpretation of the closed-ended questionnaire data from 35 respondents, this study employed a mean score range with an interval of 0.80, categorized as Very Low (1.00–1.79), Low (1.80–2.59), Moderate (2.60–3.39), High (3.40–4.19), and Very High (4.20–5.00). Meanwhile, the interview data were used to support the interpretation of the questionnaire results. The findings of this study yielded three major themes that addressed how students perceived the shadowing technique as a self-directed pronunciation practice, namely perceived suitability of shadowing for self-directed pronunciation practice, followed by perceived improvement in English pronunciation, and finally challenges and coping strategies in self-directed shadowing practice.

Perceived Suitability of Shadowing for Self-Directed Learning

The first emerging theme was students' perceptions of the suitability of shadowing as a self-directed pronunciation learning practice. Table 2 presented the results of the closed-ended questionnaire that supported this theme.

Table 2. Perceived Suitability of Shadowing for Self-Directed Learning

No	Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Category
1.	I can practice shadowing independently without teacher/lecturer supervision.	34.3	54.3	5.7	5.7	0	4.17	High
2.	I can manage my own learning schedule for shadowing practice.	22.9	40	25.7	8.6	2.9	3.71	High
3.	I choose appropriate online media (YouTube, podcasts, Tik Tok, Reels etc.) for shadowing.	54.3	31.4	11.4	2.9	0	4.37	High
4.	Shadowing helps me become a more independent English learner.	34.3	51.4	14.3	0	0	4.20	High

Based on Table 2, all items under this theme fell into the high category with mean scores above 3.40. This indicated that students' perceptions of the suitability of the shadowing technique as a self-directed pronunciation learning practice showed a positive tendency. The item with the highest mean score ($M = 4.37$) indicated that students felt capable of selecting relevant and engaging online media to support their practice. Meanwhile, the item with a mean score of ($M = 4.20$) showed that this technique did not only function as a strategy to improve pronunciation, but also served as a means to foster learner autonomy. Item ($M = 4.17$) also shows that students feel more independent and confident in managing their learning. Thus, this data confirms that the shadowing technique is considered flexible, practical, and supports the principle of self-directed learning, as it allows students to practice anytime and anywhere without relying on lecturer supervision. These findings were further supported by in-depth interview data with the students, as presented below.

“I feel that shadowing is suitable for independent pronunciation practice because it is practical, can be done anytime, has many resources that can be used for learning, and builds confidence because I practice by myself.” (P1)

“Yes, shadowing is really suitable for self-directed pronunciation learning because it is a relaxed learning method with no one supervising, so I feel more at ease and can choose the genre that suits me.” (P5)

Student (P1) revealed that shadowing was suitable for self-directed pronunciation practice because it was flexible and practical in terms of time, and the abundance of accessible material sources made shadowing easier to implement. Furthermore, student (P5) also stated that practicing shadowing independently provided a sense of comfort and freedom to experiment with pronunciation without feeling embarrassed or pressured by direct supervision from the lecturer. This meant that the learners not only saw shadowing as a means of practicing their pronunciations, but they could also see it as an aspect of autonomous learning, which provided them with total control over the learning. Through shadowing, the learners had the liberty to choose the time, the material, and the type of material to focus on. In addition to this, ease and practicality confirm the idea of shadowing as an aspect of learner-centered learning.

Perceived Improvement in English Pronunciation

The second theme concerned students’ perceived improvement in English pronunciation. Table 3 presented the pattern of closed-ended questionnaire results that supported and strengthened this theme.

Table 3. Perceived Improvement in English Pronunciation

No	Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Category
1.	Shadowing helps me improve my English pronunciation accuracy.	60	34.3	5.7	0	0	4.54	Very High
2.	Shadowing helps me recognize vowel and consonant sounds better.	48.6	42.9	8.6	0	0	4.40	Very High
3.	Shadowing helps me improve intonation, stress, and rhythm in speaking.	45.7	45.7	8.6	0	0	4.37	Very High
4.	Shadowing helps me sound more natural when speaking English.	40	51.4	8.6	0	0	4.31	Very High

Based on Table 3, all items under this theme showed very high categories with mean scores ranging from 4.31 to 4.54. This indicated that the majority of respondents experienced noticeable improvements across various aspects of pronunciation. The statement with the highest mean score (M = 4.54) demonstrated that students strongly agreed that shadowing practice helped improve the accuracy of English pronunciation. Furthermore, other items such as (M = 4.40), (M = 4.37), and (M = 4.31) consistently showed that shadowing not only supported segmental aspects (vowels and consonants) but also suprasegmental aspects, including intonation, word stress, and speaking rhythm. Thus, in general, students viewed shadowing as a technique that helped to make their pronunciation sound more accurate and

natural. These findings were also supported by in-depth interview results with students, as presented below.

“I feel that my pronunciation has become more accurate, more natural, my tongue is more flexible, and I can reduce my thick Javanese accent.” (P7)

“Shadowing helps a lot, like recognizing the vocals, the rhythm, and I can follow the native speaker’s accent.” (P3)

The excerpts above showed that shadowing practice contributed directly to students’ pronunciation improvement, both in terms of phonetic accuracy and speaking fluency and naturalness. Student (P7) highlighted increased articulatory flexibility and a reduced influence of a local accent after consistently practicing shadowing, while student (P3) emphasized that the technique helped them recognize and imitate vowel patterns, rhythm, and native speaker accents more effectively. More profoundly, this improvement also illustrated that shadowing helped students strengthen their phonological awareness of English sounds. Through the process of listening to and simultaneously imitating native speakers, students can improve their ability to distinguish between similar sounds and internalize natural stress and intonation patterns. Thus, this exercise serves as a means of improving both accuracy and fluency, as conscious repetition helps to form correct articulation habits in the long term.

Challenges and Overcoming Strategies in Independent Shadowing

The third theme addressed challenges and strategies in implementing independent shadowing practice. Table 4 presented the closed-ended questionnaire results that revealed several challenges faced by students when practicing shadowing independently.

Table 4. Challenges and Overcoming Strategies in Independent Shadowing

No	Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Category
1.	The speed of native speakers in shadowing practice is challenging.	51.4	31.3	14.3	0	0	4.37	Very High
2.	I sometimes feel bored or tired during shadowing practice.	11.4	22.9	45.7	11.4	8.6	3.17	Moderate
3.	I need more feedback to ensure my pronunciation is correct.	40	40	17.1	2.9	0	4.17	High

Based on Table 4, students indicated that they encountered several major challenges in applying the shadowing technique independently. However, these challenges did not prevent them from continuing their practice, as most students were able to identify adaptive strategies to overcome them. The item with the highest mean score ($M = 4.37$) indicated that the speaking speed of native speakers was the most frequently experienced difficulty. The item with a mean score of ($M = 4.17$) also showed a high category, indicating students’ need for feedback to ensure pronunciation accuracy. Meanwhile, the item with a mean score of ($M = 3.17$) suggested that feelings of boredom occasionally emerged but did not constitute a dominant barrier. These showed that the main challenges students faced in independent shadowing practice were the speed of audio input and limited feedback, rather than

motivation or learning fatigue. These findings were further supported by in-depth interview results with students, as shown below.

“Because shadowing is self-directed, meaning I practice on my own without anyone accompanying me, sometimes I'm still afraid that my pronunciation is wrong, and there's no feedback I can get. If there are some words that are unclear or I don't know how to read them, I usually look them up myself in an online dictionary/Google Translate, and sometimes I also record myself to see if my pronunciation is correct or not.” (P1)

“The challenge is that they speak too fast, so I often miss some words and the rhythm. To overcome this, I usually start by changing the video speed to 0.5x or 0.75x, then once I'm used to it, I change it back to normal.” (P6)

The excerpts above demonstrated that students exhibited strong reflective abilities and self-directed learning strategies in dealing with challenges. Student (P1) addressed concerns about pronunciation errors by engaging in self-monitoring through voice recordings and independently verifying pronunciation using online dictionaries. Furthermore, student (P6) adjusted video playback speed as a gradual strategy to adapt to native speaker rhythm. From these quotes, even if there is a need for strong independence in shadowing, one can adapt compensation strategies in order to ensure effectiveness in learning. The concern about inappropriate pronunciation can be diminished because of the help of technology as a reflection of learning achievement. At the same time, the adaptation based on the playback speed for an audio/video file showcases an awareness of metacognition, the capacity to observe and control one's learning processes. Instead, it can be noted that it's actually through encountering problems that students become more creative and independent as well as more conscious about learning processes related to their pronunciation skills.

Discussion

The main objective of this study is to explore EFL students' perceptions of the application of the shadowing technique as a self-directed pronunciation practice. Based on the results of the study, three major themes were found that describe students' perceptions, namely: (1) perceived suitability of shadowing as a self-directed pronunciation practice, (2) Perceived Improvement in English Pronunciation, and (3) Challenges and Overcoming Strategies in Independent Shadowing. These three themes serve as a basis for understanding how shadowing functions as a medium for reflective and autonomous learning.

The first theme indicated that students found shadowing highly appropriate for autonomous practice of pronunciation. The perception was found true by the ease of accessing electronic learning materials, convenient times, and the ability for students to choose their learning materials based on their personal preference. These findings correspond with a study by Foote & McDonough (2017) who found that mobile-assisted shadowing is capable of urging learners to take a proactive and responsible role in handling their learning process because it enables flexible and authentic practice by using mobile phones. From the perspective of learning autonomy, a study by Hamada (2019) stated that shadowing gives learners a chance for self-evaluation by means of a process of imitation while at the same time

engaging in metacognitive control, which is capable of enhancing awareness of the form and sound of the target language. Results of the current study found that EFL students in Indonesia have a positive perception towards shadowing because it is capable of fostering a confident and autonomous learning environment for English (Arbain et al., 2023; Pratama & Isnaini, 2024). This is further reinforced by a study by Barkov (2022) which highlights the potential of shadowing in an online environment to increase learner engagement and flexibility, especially when done asynchronously using digital media such as online videos and speech modelling tools. Thus, students' perceptions of the suitability of shadowing in this study reinforce the idea that this technique is not only effective in structured learning contexts but also relevant in the framework of self-directed learning in the digital age.

The second theme involved students' perceived improvement in their pronunciation after shadowing practice. The majority of respondents reported significant improvements in both segmental aspects (such as vowel and consonant clarity) and suprasegmental aspects (such as stress, intonation, and rhythm). These findings are consistent with previous studies that confirm the effectiveness of shadowing on learners' phonological development, such as those by (Elesery, 2021; Maldy et al., 2025; Sari & Jaya, 2025; Whitworth & Rose, 2025; Zambrano et al., 2025). Hamada (2018) emphasizes that simultaneous repetition helps learners build a kinesthetic connection between sound perception and articulatory production, thereby significantly improving pronunciation accuracy. Phan et al. (2024) also found that video-based shadowing effectively improves suprasegmental features such as word stress and intonation, as well as increasing positive attitudes towards English pronunciation. Other research shows that shadowing practice consistently strengthens the pronunciation skills of senior high school students in segmental aspects, with significant results in improving the clarity of consonants and vowels (Ardana et al., 2023; Subagja et al., 2024).

This improvement is further backed up by the results of Foote & McDonough (2017) that the use of mobile technology-based shadowing increases the ability for greater phonological awareness and assimilation of native speakers' rhythmic patterns via repeated imitation exercises. The same outcomes were observed in the study conducted by Utami & Morganna (2022) that shadowing produced better pronunciation clarity and fluency among Indonesian speakers. The subjects of the current study have also self-reported enhanced flexibility and less rigid articulation, which align with the views of Hamada (2019) that frequent exercises facilitate and enhance natural adaptation towards the phonetic patterns of target language use. In turn, the experiment conducted by Pratama & Isnaini (2024) supported the outcomes that the use of AI text-to-speech-based shadowing produced greater accuracy in pronunciation due to direct audio feedback on errors committed during exercises.

The third theme focused on the challenges faced by students during independent shadowing, particularly in relation to the speed of native speakers and the limitations of immediate feedback. These obstacles are common issues in shadowing practice, as explained by Hamada, (2018), who states that high input speed can cause cognitive overload for intermediate learners, requiring adaptive strategies such as progressive rate adjustment. The results of this study indicate that students are able to overcome these obstacles through strategies such as slowing down the video speed, recording themselves for self-evaluation, and using online dictionaries to check pronunciation. This is in line with the self-regulated learning approach as described by Pradana et al. (2020). The use of technology for self-feedback also supports the findings of Pratama & Isnaini (2024), which show that AI-based

shadowing tools can replace some of the teacher's correction functions in the context of independent learning. Barkov (2022) added that online learning environments can strengthen reflection and self-monitoring when students are given access to multimodal media, while research by Mu & Wasuntarasophit (2025) on Chinese students showed that mobile platform-based shadowing increases learners' perseverance and metacognitive awareness.

These findings also support the noticing hypothesis in language learning, in that awareness of phonological forms in the target language is a necessary condition for developing oral production skills. In shadowing practice, participants are indirectly training their perception and production skills all at once, which speeds up the process of internalizing English sound patterns. This supports the findings of Yenkimaleki & Heuven (2021) that exercises focusing on simultaneous attention to segmental and suprasegmental features can improve speech intelligibility and comprehensibility. Therefore, shadowing is not merely an imitation activity but a cognitive strategy that may stimulate phonological awareness and improve the adjustment of sound in real communicational contexts.

Moreover, based on studies of shadowing for pronunciation improvement, there are also sociolinguistic implications surrounding first language influence in relation to mother tongue transfer. These papers suggest that first language background is an enormously important factor in determining students' difficulties in pronouncing foreign sounds in imitation exercises, particularly in connection with intonation patterns. This study has clearly indicated that there has been a reduction in local accent for some participants, thereby supporting the idea that recurrence in exercises involving shadowing can overcome adverse effects in relation to phonological transference. Therefore, shadowing can be identified to facilitate adjustments in sound patterns in relation to adaptation in the target language (Sugiarto et al., 2020; Wang, 2022).

However, there are still limitations in this study that need to be considered. The limited number of participants from one institution and the descriptive qualitative research design limit the generalization of the results. To strengthen the empirical evidence, further research could use a mixed-method approach with more objective acoustic analysis to measure segmental and suprasegmental changes, as recommended by Whitworth & Rose (2025) in their systematic review of the effectiveness of shadowing in pronunciation teaching. Additionally, the integration of advanced technologies such as mobile-assisted shadowing in the study by Zakarneh et al. (2025), metaverse-based practice in the study by Jin (2023), and AI feedback systems can be explored to strengthen the reflective and autonomous dimensions of pronunciation learning. This approach is expected to address the limitations of human feedback, which has been a major challenge in self-directed shadowing practice.

Overall, the results of this study confirm that the shadowing technique not only functions as an effective pronunciation practice tool but also as a means of developing students' learning autonomy and metacognitive awareness. The alignment between participants' positive perceptions, empirical evidence from previous studies, and the relevance of this method in the context of modern learning indicates that shadowing has strategic potential to be systematically integrated into technology-based English pronunciation teaching curriculums and self-directed learning.

CONCLUSION AND SUGGESTION

This study summary identified three key findings: (1) the perceived suitability of the shadowing technique for self-directed pronunciation practice, (2) the perceived improvement in English pronunciation skills, and (3) the challenges and strategies to overcome them. According to the students, shadowing is considered flexible, practical, and supportive for independence because it can be performed anytime, anywhere, with various digital resources. They also saw improvements in pronunciation accuracy, vowel and consonant recognition, suprasegmental features, intonation, and rhythm, and all these culminated in more natural speaking skills. The main challenges were related to the native speakers' speed and the impossibility of receiving immediate feedback, but the students overcame them using several strategies, such as slowing down the video, recording their voices, and using online dictionaries. Overall, shadowing enhances pronunciation skills and fosters autonomy and metacognitive awareness in learning. However, the limitations of the study include the fact that the study only considered a limited number of participants, and their findings were from only one institution, and hence the findings may not be very generalizable. In addition, the descriptive qualitative research design meant that improvements in pronunciation could not be measured objectively through acoustic data or experimental tests. Further study suggests the use of a mixed-method research methodology, whereby the findings from the qualitative study would be combined with those of the quantitative study, hence improving the depth of the findings. Technology involving feedback from artificial intelligence, mobile learning, or interactive platforms may also be recommended to provide more accurate automatic feedback and increase the effectiveness of shadowing practices in the context of independent learning.

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