The Effectiveness of the Shadowing Technique in Improving Pronunciation of Libyan EFL University Students at Bani Waleed University

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فعالية أسلوب التظليل في تحسين نطق طلاب اللغة الإنجليزية كلغة أجنبية الليبيين في جامعة بني وليد

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Abstract

Pronunciation is a critical aspect of English language learning, yet many EFL learners face persistent difficulties in achieving accuracy and fluency. This study explores the effectiveness of the shadowing technique in improving pronunciation among Libyan university students at Bani Waleed University. A quasi-experimental design was adopted with 18 undergraduate English majors who received a three-month shadowing intervention as part of their phonetics course. Pre- and post-tests were conducted to measure pronunciation performance, and a semi-structured questionnaire was administered to capture learners' attitudes and perceptions. Statistical analysis indicated a significant improvement in students' pronunciation scores after the intervention ($p < 0.001$). Qualitative findings revealed that participants reported enhanced fluency, greater confidence, and positive engagement with the technique, despite initial challenges in keeping pace with the speaker. The study concludes that shadowing is an effective instructional tool for developing pronunciation and oral proficiency. It further recommends integrating structured shadowing activities into pronunciation courses, supported by teacher feedback and appropriately graded materials.

Keywords: Shadowing technique; Pronunciation; Oral fluency; EFL learners; Bani Waleed university students.

المخلص

يُعد النطق جانبًا حيويًا في تعلم اللغة الإنجليزية، إلا أن العديد من متعلمي اللغة الإنجليزية كلغة أجنبية يواجهون صعوبات مستمرة في تحقيق الدقة والطلاقة. تهدف هذه الدراسة إلى استكشاف فعالية تقنية التضليل (Shadowing) في تحسين النطق لدى طلاب الجامعة الليبيين في جامعة بني وليد. تم اعتماد تصميم شبه تجريبي شمل 18 طالبًا من تخصص اللغة الإنجليزية، حيث تلقوا تدخلًا مدته ثلاثة أشهر باستخدام تقنية التضليل ضمن مقرر الصوتيات. تم إجراء اختبار قبلي وبعدي لقياس أداء الطلاب في النطق، بالإضافة إلى استبيان نصف مُهيكل لقياس اتجاهات الطلاب وانطباعاتهم. أظهرت التحليلات الإحصائية تحسنًا كبيرًا في درجات الطلاب بعد التدخل($p < 0.001$) . كما أظهرت النتائج النوعية أن المشاركين أفادوا بتحسن في الطلاقة، وزيادة الثقة بالنفس، وانخراط إيجابي مع التقنية، رغم التحديات الأولية في مواكبة كلام المتحدث. وتوصلت الدراسة إلى أن تقنية التضليل أداة فعّالة لتطوير النطق والطلاقة الشفوية، مع التوصية بدمج أنشطة تضليل منظمة ضمن مقررات النطق، مدعومة بتغذية راجعة من المعلم ومواد تعليمية متدرجة وفق مستويات الطلاب.

الكلمات المفتاحية: تقنية التضليل؛ النطق؛ الطلاقة الشفوية؛ متعلمو اللغة الإنجليزية كلغة أجنبية؛ طلاب جامعة بني وليد.

1- Introduction

Pronunciation is a fundamental aspect of language acquisition, particularly for non-native speakers striving to attain intelligible and fluent speech. However, mastering accurate

pronunciation remains a major challenge for many learners, especially when confronted with unfamiliar phonemes, stress patterns, and intonation. As a core feature of spoken communication, clear and accurate pronunciation not only facilitates listener comprehension but also enhances the speaker's confidence when expressing ideas (Zaigham, 2011).

Among various pedagogical approaches, the shadowing technique has gained significant attention for its potential to improve learners' pronunciation accuracy, fluency, and overall oral proficiency. Shadowing involves learners repeating speech immediately after hearing it, closely imitating the rhythm, stress, and intonation of a native speaker in real-time. Originally developed as a therapeutic method for individuals with speech disorders, shadowing has recently been adopted as an effective technique in language learning contexts. Despite its proven benefits internationally, there is a notable lack of empirical research investigating the effectiveness of shadowing in enhancing pronunciation among Libyan university students, particularly those in Bani Walid.

Research Objectives
This study aims to achieve the following objectives:
- To examine the impact of the shadowing technique on improving the pronunciation accuracy of Libyan EFL university students in Bani Walid.
- To evaluate the effect of the shadowing technique on learners' oral fluency.
- To explore learners' attitudes and perceptions towards the use of the shadowing technique in pronunciation practice.
- To identify the challenges faced by students when applying the shadowing technique.

Research Questions
The study seeks to answer the following research questions:
- To what extent does the shadowing technique improve the pronunciation accuracy of Libyan EFL university students?
- How does the shadowing technique affect the oral fluency of these learners?
- What are the learners' attitudes towards using the shadowing technique in pronunciation learning?
- What challenges do learners encounter when practicing the shadowing technique?

Significance of the Study
This study holds both theoretical and practical significance.
- **Theoretically**, it contributes to the existing body of knowledge on pronunciation instruction by providing empirical evidence on the shadowing technique's effectiveness within the Libyan context, which remains under-explored.
- **Practically**, the findings may inform English language instructors, curriculum designers, and teacher trainers about incorporating shadowing into pronunciation teaching methods, potentially improving learners' oral proficiency and communicative confidence.

Limitations of the Study
This study included only an experimental group; no control group was used. Therefore, while improvement is evident, it cannot be conclusively attributed solely to shadowing. Future studies should include a control group to strengthen validity.

2. Literature Review
Pronunciation plays a crucial role in second language acquisition as it directly influences the intelligibility and comprehensibility of spoken language. Effective pronunciation enables learners to communicate clearly, thereby facilitating successful interaction. However,

numerous EFL learners encounter challenges in mastering the sound system of the target language, particularly due to differences in phonemes, stress, rhythm, and intonation patterns between their native language and English. These difficulties often result in miscommunication and may adversely affect learners' confidence in speaking.

To address these challenges, various instructional techniques have been developed, among which the shadowing technique has received increasing scholarly attention. Shadowing requires learners to immediately repeat speech after hearing it, imitating the speaker's pronunciation, stress, rhythm, and intonation. This real-time mimicry fosters active listening and intensive oral practice, thereby promoting greater phonological awareness and enhanced oral fluency.

Shadowing in EFL Research
In the realm of language instruction, Tamai (1997) was among the pioneers to systematically apply shadowing to foreign language education, emphasizing its dual benefits in improving both pronunciation and listening comprehension. Subsequent research has explored shadowing in various EFL contexts:

- Murphey (2001) demonstrated the efficacy of shadowing through songs in developing rhythm and intonation.
- Kadota (2011) underscored shadowing's role in enhancing automaticity and speech fluency, while Hamada (2015) provided empirical evidence of improvements in listening comprehension and speech clarity.
- Furthermore, Willardson (2014) revealed that video-based shadowing significantly improved learners' fluency and accuracy, and Zook (2014) found that shadowing raised phonemic awareness, albeit with modest statistical gains.

Recent Quasi-Experimental Evidence
More recent quasi-experimental studies in Indonesia have further validated shadowing's effectiveness in classroom settings:

- Leonisa (2020) observed significant pronunciation improvement among tenth-grade students ($t = 10.82$).
- Subagja et al. (2024) reported notable gains in the articulation of fricative sounds ($t = 2.580$).
- Similarly, Suyadi (2024) demonstrated enhanced fluency and articulation compared to traditional teaching methods.
- In higher education contexts, Sari and Jaya (2024) documented substantial increases in oral performance scores—from 5.06 to 8.81—following a shadowing intervention.
- Jayani (2024) likewise reported meaningful progress in speaking fluency and pronunciation accuracy after a four-week shadowing program.

Technological Advancements
From a technological standpoint, Foote and McDonough (2017) investigated the use of iPods for shadowing practice, noting improvements in suprasegmental features such as rhythm and intonation. More recent innovations include the integration of artificial intelligence tools and visual feedback mechanisms, such as visual-speech synthesis and mobile applications (Willardson, 2020; Georgiou, 2025), to facilitate pronunciation training.

Research Gap
Despite the expanding body of international research, there remains a pronounced gap in studies conducted within the Libyan context. To the best of the researcher's knowledge, no published studies in Libya have specifically examined the effectiveness of the shadowing technique in enhancing English pronunciation. Therefore, this study seeks to address this gap by

investigating the potential of shadowing to support Libyan university students in developing clearer and more accurate spoken English.

3. Methodology
Research Design
This study adopted a quasi-experimental design with a single-group pre-test/post-test model to investigate the effectiveness of the shadowing technique in improving students' English pronunciation. Although the inclusion of a control group would have provided stronger comparative data, it was not feasible in this context. The researcher was also the instructor of the Phonetics 3 course, and all participants were enrolled in the same class. Therefore, dividing the class into separate instructional groups was neither practical nor ethical. The primary focus of the study was to measure within-group improvements over the course of one academic semester. In addition, a semi-structured questionnaire was administered at the end of the study to explore students' attitudes and reflections regarding the use of the shadowing technique.

Participants
The participants consisted of 18 undergraduate students majoring in English at the Faculty of Education, University of Bani Walid, Libya. All participants were enrolled in the Phonetics 3 course and came from different academic semesters—specifically, the third and fifth semesters. Their English proficiency levels ranged from weak to intermediate, based on a combination of self-assessment and the researcher's observational evaluation. None of the participants had prior formal exposure to the shadowing technique.

Instruments
Two primary tools were used for data collection:
1. **Pronunciation Tests:** A **pre-test** and **post-test** were used to evaluate students' pronunciation accuracy. In addition to observation-based evaluation, audio recordings of students' speech were collected for detailed analysis.
2. **Questionnaire:** A questionnaire was administered at the end of the semester to explore students' perceptions of the shadowing technique. It included both closed- and open-ended questions covering areas such as learners' familiarity with shadowing, frequency of use, perceived ease or difficulty, impact on pronunciation and speaking skills, and general feedback.

Procedure
The intervention spanned three months (one academic semester), during which students participated in weekly sessions incorporating the shadowing technique into phonetics instruction. Each session included listening to recordings of native English speakers, followed by immediate oral repetition. The focus was on mimicking pronunciation, intonation, rhythm, and stress. The instructor provided brief guidance and corrective feedback during class sessions, and students were encouraged to continue shadowing outside the classroom using online materials.

The pre-test was conducted on the first day of the semester to establish a baseline for each student's pronunciation performance. At the end of the semester, a post-test was administered to assess improvement. All sessions were audio-recorded to facilitate detailed comparison between the pre- and post-test stages. After the final session, the questionnaire was distributed to gather students' perspectives and reflections on their learning experience.

4. Results and Discussion

Data Analysis

Quantitative data from the pronunciation tests were analyzed using descriptive statistics (e.g., means, standard deviations) and inferential statistics (e.g., paired-samples *t*-test) to measure the degree of improvement in students' pronunciation skills. Meanwhile, qualitative data from the questionnaire responses were examined using thematic analysis to identify recurring themes, attitudes, and student feedback regarding the shadowing technique.

Table 1. Descriptive Statistics of Pre-Test and Post-Test Scores.

Variable	N	Mean	SD	SEM
Pre-Test	18	5.944	1.765	0.416
Post-Test	18	7.417	1.536	0.362
Difference	18	1.473	0.57	0.134

Note: Mean = average score, SD = standard deviation, SEM = standard error of the mean.

The pre-test scores, obtained before the implementation of the shadowing technique, had a mean of 5.944. Following the intervention, the post-test scores showed an increased mean of 7.417, indicating a clear improvement in pronunciation performance.

The mean difference between the post-test and pre-test scores was 1.47, with a standard deviation of 0.57. This positive difference suggests that most students improved their pronunciation after applying the shadowing technique.

Table 2. Paired-Samples T-Test for Pre-Test and Post-Test Scores.

Paired Comparison	t-value	Df	p-value (2-tailed)
Pre-Test vs Post-Test	7.12	17	< 0.001

A paired-samples t-test was conducted to determine whether the observed improvement was statistically significant. The assumptions for the t-test—namely, that the differences between paired scores are approximately normally distributed and that the data are continuous and measured at the interval level—were satisfied. The analysis yielded a t-value of 7.12, and the corresponding p-value was less than 0.001. This indicates a statistically significant difference between the pre-test and post-test scores.

Table 3. Shapiro-Wilk Normality Test for Pre-Test, Post-Test, and Difference Scores.

Variable	Shapiro-Wilk	Df	p-value
Pre-Test	0.956	18	0.345
Post-Test	0.973	18	0.602
Difference	0.965	18	0.411

Since all p-values are greater than 0.05, the data are considered normally distributed, allowing the use of parametric tests.

Results

Quantitative Finding

The descriptive statistics showed that students' mean score increased from 5.944 (SD = 1.765) in the pre-test to 7.417 (SD = 1.536) in the post-test. The mean difference between pre-test and post-test scores was 1.473 (SD = 0.57). A paired-sample t-test was conducted to examine

whether the improvement was statistically significant. The results indicated a significant improvement in students' pronunciation scores, $t(17) = 7.12$, $p < 0.001$. This demonstrates that the shadowing technique had a positive and meaningful effect on the students' pronunciation performance.

To gain deeper insights into the students' experiences and attitudes toward the shadowing technique, a set of questions was conducted at the end of the experimental period. This questionnaire aimed to explore the students' prior knowledge of the technique, their opinions about its usefulness, and their perceived improvements in pronunciation and speaking confidence. The responses were analyzed both quantitatively and qualitatively to highlight recurring themes and general trends.

Thematic Analysis of Questionnaire Responses (Qualitative Findings)

1- Prior Awareness of the Shadowing Technique

Most students (80%) were unfamiliar with the shadowing technique before the study, indicating that it was a novel experience for them. This ensures that observed improvements in pronunciation resulted from direct exposure rather than prior experience.

2- Practice Frequency

All participants practiced shadowing more than once per week, although exact frequencies varied. Regular practice contributed to consistent engagement and skill development throughout the study period.

3- Initial Difficulty and Adaptation

Students initially faced challenges keeping pace with the speaker and balancing listening and speaking. With continued practice, the technique became easier, reflecting a natural learning curve and gradual improvement in fluency.

4- Pronunciation Improvement

70% of students reported enhanced intonation and fluency, while 30% highlighted increased confidence alongside fluency. Shadowing thus positively affected both technical pronunciation skills and psychological readiness to speak.

5- Recommendation and Engagement

All participants expressed willingness to recommend the technique to others and described it as enjoyable and motivating, demonstrating its perceived value as a pronunciation and listening tool.

6- Suggestions for Improvement

Students suggested more in-class practice, continuous feedback from instructors, and using materials of varying difficulty levels to better match learner proficiency, reflecting motivation for deeper engagement and structured guidance.

Interpretation:

Overall, the qualitative findings indicate that the shadowing technique is an effective and engaging method for improving pronunciation. Consistent practice leads to measurable gains in fluency and confidence, and students recognize its value enough to recommend it to others.

Discussion

The present study examined the effectiveness of the shadowing technique on students' pronunciation skills. The quantitative analysis showed a significant improvement in post-test scores compared to pre-test scores ($t(17) = 7.12$, $p < 0.001$), indicating that the intervention had a positive impact on students' pronunciation performance.

The qualitative findings from the semi-structured questionnaire support these results. Most students reported consistent practice, initial difficulty followed by gradual improvement, and perceived enhancements in fluency, intonation, and confidence. These patterns suggest that

shadowing not only improves technical pronunciation skills but also positively influences learners' psychological readiness to speak.

These findings are consistent with previous studies. Sugiarto, Prihantoro, and Edy (2020) found that shadowing significantly enhanced students' stress, rhythm, and intonation. Suyadi (2024) reported improvements in pronunciation accuracy and fluency among students practicing shadowing. Similarly, Utami (2022) and Huyen & Hien (2025) documented gains in fluency, confidence, and overall pronunciation skills using the technique. The novelty of the technique for most participants in this study may have contributed to high engagement and noticeable improvement, supporting the idea that exposure to new and interactive learning methods can enhance motivation and outcomes. Additionally, students' suggestions for more in-class practice, regular feedback, and graded materials reflect the importance of structured guidance to maximize learning gains.

The combined quantitative and qualitative evidence highlights the holistic benefits of shadowing. Students not only demonstrated measurable improvements in pronunciation but also expressed positive perceptions, high engagement, and willingness to recommend the technique to others. These outcomes emphasize that shadowing supports both technical and psychological aspects of language learning, making it a versatile instructional tool.

Conclusion

This study examined the effectiveness of the shadowing technique in improving the pronunciation and oral fluency of Libyan EFL university students at the University of Bani Walid. The findings revealed a statistically significant improvement in students' pronunciation performance following the intervention, confirming the positive impact of shadowing as a pedagogical tool. In addition to measurable gains, students reported enhanced fluency, confidence, and motivation, highlighting the technique's dual benefits for both linguistic competence and learner psychology. These results align with previous international research and contribute new evidence from the underexplored Libyan context.

The study emphasizes the value of integrating shadowing into English pronunciation courses, particularly when supported by structured practice, consistent teacher feedback, and materials adapted to learners' proficiency levels. While the absence of a control group limits the scope of the findings, the study provides a strong foundation for future research on the long-term impact of shadowing and its potential integration with other pronunciation strategies. Ultimately, the results suggest that shadowing is not only effective but also engaging, offering learners a practical and motivating approach to developing clearer and more confident spoken English.

Recommendations

- Shadowing is effective for improving pronunciation, fluency, and confidence.
- Integrating shadowing into pronunciation courses enhances both technical skills and psychological readiness.
- Educators should provide structured practice sessions.
- Continuous instructor feedback is essential.
- Use materials of varying difficulty tailored to proficiency levels.
- Future research could:
  - Investigate long-term effects.
  - Apply to larger or diverse populations.

Explore combining shadowing with other pronunciation techniques

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Compliance with ethical standards

Disclosure of conflict of interest

The authors declare that they have no conflict of interest.