The Effectiveness of Modified Video-Based Shadowing to Improve 7th-Grade Madurese Students' English Pronunciation

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Abstract: This study aims to investigate the effectiveness of modified video-based shadowing as a teaching technique to enhance the Madurese students' English pronunciation. This true experimental research involved two groups of 7th-grade students. An experimental group received treatment using the video-based shadowing technique and a control group followed the traditional teaching technique. Students were given read-aloud pre- and post-tests and pronunciation exercises. They were assessed using pronunciation checker tools to ensure accurate measurements. Based on the experiment, the common pronunciation errors made by the students were substitutions, such as pronouncing the word /let/ as /lɪt/, or /ˈbrekfəst/ as /brɪgfəs/. The results revealed that the experimental group showed a significant increase in their post-test scores, from 38.68 to 43.91, while the control group exhibited a decline from 36.01 to 33.28. There were noticeable reductions in the frequency of mispronunciation among the students after using the modified video-based shadowing technique. Based on this positive result, the researchers implied that this technique is suggested for teachers to improve students' English pronunciation.

Keywords: Video-Based Shadowing, Pronunciation, Madurese Students

Introduction

The processes involved in learning a second language are fascinating. When someone acquires a second language, it is possible to experience assimilation between the rules or structure of the first language (L1) and the second language (L2) until the first-language rules influence the production of the second language. This phenomenon is called language interference. Saliyevich (2023) stated that language interference occurs when the native language of learners influences their target language acquisition. One of the impacts of language interference in the students' learning process is pronunciation, which is mentioned as phonological interference. This was explained by Putri (2018), that phonological interference is the language transfer of native language pronunciation that affects second language pronunciation.

Fontiveros-Malana (2018) conducted a study using sixty sophomore university students as subjects to observe L1 interference in Ilocano, Ibanag, and Itawes cultural groups on English language skills. As a result, the level of L1 interference in each cultural group is different. Students from Ilocano had the highest interference score. It was found

that students made mistakes in pronouncing consonant and vowel sounds and substituted sounds such as /d/ to /th/, /t/ to /th/, or /a/ to /ae/. According to Liang (2015), Chinese EFL learners are likely to have certain phonetic difficulties when it comes to pronunciation. Some concern issues are related to the vowels and consonants such as there are vowel combinations and consonant clusters that are prohibited by Chinese phonotactic constraints, and there are vowels and consonants that do not exist in Chinese or pronounced differently in Chinese.

Phonological interference can also occur in Indonesia because this country has more than 700 different local languages, which makes Indonesian citizens commonly use diverse languages and dialects depending on where they live. Therefore, many students have difficulty learning English pronunciation because the local accent that students have affects students' pronunciation of English. Most of the students have difficulty in producing English pronunciation like native speakers. Based on the investigation by Islam (2020) regarding segmental errors in the English pronunciation of non-native English speakers, it is revealed that the most common English segmental error is the pronunciation of short English vowels, namely /ə/. Non-native English speakers do not pay attention to vowel length when speaking, therefore, learners tend to generalize pronunciation, whether it is long or short. In another study by Wardani et al. (2019) on the difficulty of pronouncing English by Javanese learners, the results showed that it was difficult for students to pronounce the sounds /ʒ/, /v/, /θ/, /ð/, /z/, /ʃ/, /f/, /g/, /k/, /d/, /ʧ/, /ŋ/, /j/ for consonants and /æ/, /ɛə/, /i:/, /eɪ/, /aʊ/, /ə:/, /ɔ:/, /u:/, /ɒ/, /ɪə/, /əʊ/, /ʊ/, /ɑ:/, /ɪ/, /ʊə/, /ɔɪ/, /aɪ/ for vowels. The factors that influence Javanese students' pronunciation are age, first language, exposure, and motivation.

As one of the ethnic groups in Indonesia, Madura has a local language that is interesting to explore in linguistics. According to Misnadin (2016), Madurese is part of Western Malayo-Polynesian, exhibiting phonological patterns that are uncommon across languages. This causes Madurese students' pronunciation in second or foreign languages to be influenced by their unique language. The findings of previous studies commonly said that there are phonological interferences in the English-speaking performance of learners that are influenced by the Madurese. Another research conducted by Istiana (2017) found that Madurese students tend to make mistakes in vowels, consonants, diphthongs, and other categories. Errors in vowels, for example, students said the word 'exactly', which is correctly pronounced as [ɪɡˈzæktli], becomes [ɛksʌkli]. Apart from that, students also made pronunciation errors by adding unnecessary 'stress' to words before the first letter. For example, students pronounced the word 'yeah' [jeə] as ['iyah]. According to Gunawan (2014), the types of errors made by the Madurese adult learners are sound substitutions, sound deletions, and sound insertions. For the sound substitutions, the learner pronounced [stun] for the word 'stun', which should be pronounced as [stʌn]. Lastly, for the sound insertions, the students pronounced 'smell' as [səmæl] instead of [smel].

Besides, the use of English in Indonesia as a foreign language is rarely found in daily conversation except for educational or professional purposes. This causes a lack of exposure to English in students' daily conversations. Suparman et al. (2021), discussed that the most dominant language used in Indonesia in daily conversation is Indonesian, then

the second is the local language, and the last is English. It was proven that the daily use of English in Indonesia for more than 30 hours is only 4.8%. However, according to Suparman, Indonesians get great exposure to English through Western movies and music. Therefore, to facilitate EFL students' exposure to English, many researchers have conducted studies about suitable learning techniques to improve students' pronunciation skills, one of the effective teaching techniques for improving EFL students' English pronunciation is by using the shadowing technique. According to Salim et al. (2020), the shadowing technique requires students to listen to an audio and instantly repeat the speech. Students who use the shadowing technique repeat speakers' words and phrases word for word.

A variety of research have shown the effectiveness of the shadowing technique to enhance students' English pronunciation. Following Utami & Morganna (2022) and Sugiarto et al. (2020), the shadowing technique significantly enhanced various aspects of speech, including phonemes, sound combinations, stress, rhythm, and intonation. This encouraged the researcher to employ shadowing techniques to enhance the English pronunciation skills of Madurese students. This aims for the students can reduce the influence of their first language and receive clear examples of correct English pronunciation through audio from native speakers.

The selection of high-quality listening material is an important element in the effectiveness of this technique. Therefore, this research used engaging videos for students' listening practice. Supported by previous research, numerous studies agreed that the use of visual and audio through videos can enhance learning motivation and help students in learning English pronunciation. According to Mulyani and Sartika (2019), stated that the use of YouTube-based video learning activities helped junior high school students pronounce words correctly in English. A research by Birulés-Muntané and Soto-Faraco (2016) also showed that there are significant results regarding the use of movies to improve EFL students' listening skills. This research used Spanish students as the subjects. Participants in this research experienced a pre-test and post-test in the form of listening and vocabulary tests. As a result, students showed changes when watching films using English subtitles rather than the Spanish subtitles or without subtitles version. Hasan (2022), also stated that students majoring in English felt that movies were an interesting learning medium to increase students' desire to learn English.

Based on the issues discussed above, the researcher intends to overcome the problem of English pronunciation caused by Madurese language interference using a video-based shadowing technique. In line with Martinsen et al. (2017), video-based shadowing has been proven to improve students' pronunciation skills. Using read-aloud tests and free-response activities, the results of the study showed that there was a significant increase in students' pronunciation skills, especially in read-aloud assignments. Mıcık and Rızaoğlu (2024) also found similar findings in another investigation. One class was utilized for the experimental group, and one class served as the control group. The study's findings demonstrated a noteworthy improvement in the experimental group, which received treatment consisting of 11 shadowing assignments every two weeks. Students in this course have improved their pronunciation in aspects such as comprehensibility, speaking rate, and intonation. However, there are still a few research that examined the

effectiveness of video-based shadowing as a tool especially to improve Madurese students' ability to pronounce English words correctly. Therefore, the researcher conducted this research to demonstrate the effectiveness of the modified video-based shadowing technique for improving the pronunciation skills of Madurese students. Recognizing the unique linguistic challenges faced by the students, whose native language may have phonetic and phonological differences from English.

Methodology

Researchers used a quantitative approach using an experimental research design. A quantitative approach allows researchers to collect precise and numerical data, facilitating rigorous and objective measurement of the variables under study. According to Creswell and Creswell (2017), Experimental research allows researchers to conduct research by providing special treatment to one group and not providing treatment to other groups. After that, researchers assessed the results of both groups. subjects were randomly assigned to treatment conditions.

The researcher took the sample from two classes in the 7th grade at one of the Junior High Schools in Sumenep. The classrooms that were used as the sample is VII-5 and VII-6 classes. There are 31 numbers of students in the VII-6 class and 32 students in the VII-5 class. In addition, most of the students come from Sumenep and use Madurese as their daily language. The sample selected in this study used a random sampling technique.

The researcher provided a pronunciation test in the form of reading aloud using English to assess how students pronounce the English words. The pre-test was given before carrying out the treatment. After being given treatment, students took a post-test with the same question model as the pre-test to find out whether students had improved in pronunciation ability. During the treatment for experimental class students, the researcher employed tracking exercises to monitor the student's learning progress gradually, from the first to the final meeting.

The treatment involved the application of video-based shadowing using a 2-minute video in the classroom and the shadowing techniques that the students were required to practice independently at home. There were two exercises that the students had to complete after being given the treatment in the second and third meetings. The students were instructed to submit their voice recordings after performing the shadowing technique. This exercise, a read-aloud test, had to be submitted within a maximum of three days after the treatment was applied in the classroom. As a tool to assess test results, researchers utilized two distinct online platforms to evaluate the pronunciation skills of students with different score interpretations. The first platform, SpeechSuper, provided a comprehensive analysis of phonetic accuracy by offering detailed International Phonetic Alphabet (IPA) feedback. On the other hand, the Pronunciation Checker focuses on the overall clarity and intelligibility of students' speech.

In quantitative analysis, the researcher used the score results from the pre-test and post-test in the experimental class and control class. The researcher compared the results of the pre-test and post-test. If the post-test scores are higher than the pre-test result, it indicates that video-based shadowing is beneficial for improving pronunciation. After collecting data, researchers analyzed the data using SPSS.

Result and Discussion

1. Madurese Students Pre- and Post-Test Scores

For the control group, the researchers noted that the highest pre-test score was 66.67, indicating that some students had quite good pronunciation abilities. In contrast, the lowest pre-test score was 2.67, indicating significant differences in basic knowledge among students. Besides, the range of lowest and highest scores on the post-test was seen to be between 1.30 and 68.97. Lower post-test scores indicate that some students still have difficulty with English pronunciation.

For the experimental group, the highest pre-test score was 69.88, which indicates that some students had a relatively strong ability in English pronunciation. On the other hand, the lowest pre-test score was 8.54, which indicates the different levels of each student in pronunciation ability. Besides, The post-test scores range from 16.13 to 71.43, demonstrating an improvement from the pre-test scores for many students.

2. Paired Samples Test

The researcher used a paired sample test to compare two related groups to determine whether their means differ significantly. By focusing on the differences within subjects, the paired sample test reduces the impact of confounding variables and provides a clear assessment of the treatment's impact.

Table 1. Control Class Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	36.013	31	15.53	2.791
	Post-Test	33.284	31	17.38	3.122

Table 1 offers a detailed comparison of the average scores obtained from both the pre-test and post-test assessments conducted for the control class. Initially, the mean score recorded during the pre-test phase was 36.01, with a standard deviation of 15.53. Subsequently, during the post-test phase, this mean score decreased slightly to 33.28, with a standard deviation of 17.38. The analysis of these results indicates that the observed changes in scores between the two testing periods were not statistically significant.

Table 2. Experimental Class Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	36.681	31	15.57	3.157
	Post-Test	43.912	31	16.55	2.973

Table 2 displays the average values before and after the experimental class, which shows striking differences. The initial mean score of the pre-test reached 38.6813 (SD = 17.57), while the mean post-test score jumped to 43.9123 (SD = 16.55). It was ensured that the difference in the average scores of the experimental class had statistical significance. Based on the table above, the results show statistical significance via Sig. (two-sided),

which is documented as 0.001, indicates that the result has significance because it is below the conventional threshold of 0.05.

3. Madurese Students' Pronunciation Performance during the Pre-test and Post-test

The researcher monitored this progress during the time that students were given treatment in the form of the application of the modified video-based shadowing technique. Pronunciation assessments were given as tasks to be completed at home. This allowed students the opportunity to practice video-based shadowing independently. The table below shows an example of several performances of students' pronunciation.

Table 3. Madurese Students' Pronunciation Performances

No.	Name	IPA Sound	Students' Pronunciation (Pre-test)	Students' Pronunciation (Post-test)
1.	BA	/let/	/lit/	/let/
		/tel/	/til/	/tel/
		/her/	/heɪr/	/her/
		/əˈraʊnd/	/ɑː rɔː n/	/əˈraʊnd/
2.	MM	/bed/	/bɪd/	/bɪd/
		/let/	/lit/	/lit/
		/tel/	/til/	/til/
		/ˈbrekfəst/	/brɪgfæs/	/brɪgfæs/
		/brʌʃ//	/bru:s/	/brʌʃ/
3.	MY	/let/	/lit/	/let/
		/tel/	/til/	/tel/
		/brʌʃ/	/bru:s/	/brʌʃ/
		/draɪ/	/drɪ/	/draɪ/
		/her/	/heɪr/	/heɪr/
		/əˈraɪv/	/əri:ʃ/	/əˈraɪv/
		/bed/	/bed/	/bid/

Table 3 above shows the students' progress during the pre-test and post-test. It highlights several words that the students mispronounced. After the treatment was given, the results indicate a reduction in pronunciation errors in the post-test. The common pronunciation errors made by the students were substitutions, such as pronouncing the word /let/ as /lɪt/ or /bed/ as /bɪd/.

Discussion

The language interference of the Madurese impacts the students' English pronunciation. The observations revealed that the Madurese accent affects students' pronunciation of English words, making their pronunciation incomprehensible to the pronunciation-checking system. A notable example of this is seen in the students' pronunciation of the vowel /e/, which is present in words such as 'tell', 'breakfast', 'let', 'bed', and others. During pre-test assessments, it was proven that Madurese students consistently mispronounced these words. These errors are caused by small but critical differences in phoneme arrangement between English and Madurese, which cause distortions that make the intended words difficult to understand for listeners accustomed to standard English pronunciation.

However, after receiving the treatment, students showed improved pronunciation performance starting from the first treatment session, continuing through the second treatment session, and gradually in the post-test results. This proves that the use of video-based shadowing techniques was effective in improving students' pronunciation abilities. To ensure that the improvement in pronunciation was confirmed to be caused by the shadowing technique, the researcher tracked the progress of pronunciation skills in every meeting of the English class. According to Martinsen et al. (2017), tracking pronunciation exercises is necessary to better understand the impact of using the shadowing technique in enhancing students' pronunciation abilities.

This study focused on enhancing the English pronunciation abilities of Madurese students, whose first language is Madurese. The primary objective in language learning is for students to effectively express their ideas using the target language. One of the most important aspects of successful communication is pronunciation. In line with Prashant (2018), explained that incorrect pronunciation of a language can cause misunderstandings and negative social perceptions, whereas when someone speaks with good pronunciation, it can build confidence and enhance a positive social reputation. Therefore, pronunciation plays a crucial role in determining how well students can be understood when speaking.

Based on the result, the experimental group's average scores were 38.68 and 43.91, while the control group was 36.01 and 33.28, according to an analysis of the pre-test and post-test evaluations. This noteworthy difference highlights the effectiveness of the modified video-based shadowing technique in promoting enhanced abilities in spoken English performance and implies that students in the experimental group made significant progress in pronunciation.

Conclusion

The use of pronunciation teaching methods through video-based shadowing techniques has been proven to significantly improve students' pronunciation abilities. Video-based shadowing provides clear and accurate pronunciation models in the form of video so that students can directly follow the audio. This technique allows students to mimic the English pronunciation of native speakers through video, which helps them correct common pronunciation mistakes.

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