

THESIS

**THE EFFECTIVENESS OF MINIMAL PAIRS IN
INCREASING STUDENTS' PRONUNCIATION
MASTERY AMONG JUNIOR HIGH SCHOOL**

By:
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ENGLISH EDUCATION DEPARTMENT
FACULTY OF TARBIYAH AND TEACHER TRAINING
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM
MALANG
2026

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AMONG JUNIOR HIGH SCHOOL**

*Submitted to the Faculty of Education and Teacher Training in Partial Fulfillment of the
Requirement for the Bachelor's Degree of English Language Teaching (S.Pd) in the
English Education Department*

By:
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UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM
MALANG
2026**

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INCREASING STUDENTS MASTER PRONUNCIATION
AMONG JUNIOR HIGH SCHOOL**

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**The Effectiveness of Minimal Pairs in Increasing Students' Pronunciation Mastery
Among Junior High School**

THESIS

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1. This undergraduate thesis is the sole work of the author and has not been written in collaboration with another person, nor does it include, without due acknowledgment, the result of any other person.
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DEDICATION

First and foremost, I offer my deepest gratitude to Allah SWT, the Owner of Knowledge, who has granted me strength, patience, and guidance so that this long journey could reach its conclusion. Peace and blessings be upon the Prophet Muhammad SAW, whose light of knowledge has always been an inspiration and a guide in every step of my search for identity and truth.

I dedicate this thesis as an expression of devotion and love to my beloved parents, my father, Mr. Sobirin, and my mother, Mrs. Djuliani. Thank you for every prayer offered in the quiet of the night, for the unwavering love, and for the moral and financial support that became the fuel for me to keep moving forward.

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Thank you for choosing not to give up, for being brave enough to face anxiety, and for continuing to fight until this point. You did it.

MOTTO

فَاصْبِرْ إِنَّ وَعْدَ اللَّهِ حَقٌّ وَلَا يَسْتَخِفُّكَ الَّذِينَ لَا يُؤْمِنُونَ ﴿٦٠﴾

So be patient. Indeed, the promise of Allah is truth. And let them not disquiet you who are not certain.

(Q.S Ar Rum: 60)

“Mundus lusus est, si ludere non vis”

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3. Maslihatul Bisriyah, M. TESOL., as the Head of the English Education Department.
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Finally, the researcher hopes that this thesis will be beneficial for the readers and the development of English education. May Allah SWT. bless all the people who have helped the researcher in finishing this work.

LATIN ARABIC TRANSLITERATION GUIDE

The writing of Arabic-Latin transliteration in this thesis uses transliteration guidelines based on a joint decision of the Minister of Religion of the Republic of Indonesia and the Minister of Education and Culture of the Republic of Indonesia Number 158 of 1987 and Number 0543b/U/1987 which can be described as follows:

A. Words

ا	= a	ز	= z	ق	= q
ب	= b	س	= s	ك	= k
ت	= t	ش	= sy	ل	= l
ث	= ts	ص	= sh	م	= m
ج	= j	ض	= dl	ن	= n
ح	= h	ط	= th	و	= w
خ	= kh	ظ	= zh	ه	= h
د	= d	ع	= ‘	ء	= ‘
ذ	= z	غ	= g	ي	= y
ر	= r.	ف	= f		

B. Long Vocal

Long Vocal (a)	= â
Long Vocal (i)	= î
Long Vocal (u)	= û

C. Diphthong Vocal

أو	= aw
أي	= ay
أو	= û
إي	= î

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
EFL	English as a Foreign Language
SLA	Second Language Acquisition
L1/L2	First/Second Language
SPSS	Statistical Package for the Social Sciences
DF	Degree of Freedom

ABSTRACT

Azmi, Sabrina Mirza 2026. The Effectiveness Of Minimal Pairs In Increasing Students' Master Pronunciation Among Junior High School. Thesis, English Education Department. Faculty of Education and Teacher Training. The Islamic State University of Maulana Malik Ibrahim Malang.

Advisor: Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed.

Keywords: Minimal Pairs, Pronunciation Mastery, Vowel Phonemes, English Pronunciation, Junior High School Students.

This study aims to investigate the effectiveness of the *minimal pairs* technique in improving junior high school students' pronunciation mastery. The research conducted at SMPN 4 Kota Mojokerto with the main problem addressed in this study is students' difficulty in distinguishing and pronouncing certain English phonemes, particularly vowel sounds with similar articulatory features. This research employed a quantitative approach using a quasi-experimental design with a pre-test and post-test. The participants were junior high school students who received pronunciation instruction through the *minimal pairs* technique. The research instrument was a pronunciation test focusing on several phonemic contrasts, namely /e/–/æ/, /ɪ/–/i:/, and /ʊ/–/u:/. The data were analyzed by comparing the results of the pre-test and post-test. The findings revealed a significant improvement in students' pronunciation ability after the treatment was implemented. Therefore, it can be concluded that the *minimal pairs* technique is effective in enhancing junior high school students' pronunciation mastery. This technique is recommended for English pronunciation teaching as it helps students distinguish sounds more accurately and improves their overall pronunciation clarity.

ABSTRAK

Azmi, Sabrina Mirza 2026. Efektivitas Pasangan Minimal dalam Meningkatkan Penguasaan Pelafalan Siswa di Sekolah Menengah Pertama. Skripsi, Program Studi Pendidikan Bahasa Inggris. Fakultas Pendidikan dan Keguruan. Universitas Islam Negeri Maulana Malik Ibrahim, Malang.

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Kata Kunci: *minimal pairs*, Penguasaan Pelafalan, Fonem Vokal, Siswa SMP

Penelitian ini bertujuan untuk mengetahui efektivitas penggunaan teknik *minimal pairs* dalam meningkatkan penguasaan pelafalan siswa sekolah menengah pertama. Penelitian ini dilakukan di SMPN 4 Kota Mojokerto dengan permasalahan utama dalam penelitian ini adalah rendahnya kemampuan siswa dalam membedakan dan mengucapkan fonem bahasa Inggris tertentu, khususnya fonem vokal yang memiliki kemiripan bunyi. Penelitian ini menggunakan pendekatan kuantitatif dengan desain *quasi-experimental* berupa *pre-test and post-test*. Subjek penelitian adalah siswa kelas SMP yang mengikuti pembelajaran pelafalan menggunakan teknik *minimal pairs*. Instrumen penelitian berupa tes pelafalan yang mencakup beberapa kontras fonem, yaitu /e/–/æ/, /ɪ/–/i:/, dan /ʊ/–/u:/. Data dianalisis dengan membandingkan hasil *pre-test* dan *post-test*. Hasil penelitian menunjukkan adanya peningkatan yang signifikan pada kemampuan pelafalan siswa setelah diberikan perlakuan. Dengan demikian, dapat disimpulkan bahwa teknik *minimal pairs* efektif dalam meningkatkan penguasaan pelafalan siswa SMP. Teknik ini direkomendasikan untuk digunakan dalam pembelajaran pelafalan bahasa Inggris karena dapat membantu siswa membedakan bunyi secara lebih akurat dan meningkatkan kejelasan pengucapan.

مستخلص البحث

أزمي، سابرينا ميرزا، ٢٠٢٦. فعالية الأزواج الدنيا في تحسين إتقان نطق الطلاب في المدرسة المتوسطة. رسالة جامعية. قسم تعليم اللغة الإنجليزية، كلية علوم التربية والتعليم. جامعة مولانا مالك إبراهيم الإسلامية الحكومية مالانج.

المشرفة: الأستاذة الدكتورة الحاجة لايك راسكوف أوكتايرلينا، الماجستير.

الكلمات الأساسية: الأزواج الدنيا، إتقان النطق، الفونيمات الصوتية، طلاب المرحلة المتوسطة.

تهدف هذه الدراسة إلى معرفة فعالية استخدام تقنية الأزواج الدنيا في تحسين إتقان نطق طلاب المرحلة المتوسطة. أُجريت هذه الدراسة في المدرسة المتوسطة الحكومية ٤ بمدينة موجوكتو، حيث تمثلت المشكلة الرئيسة في انخفاض قدرة الطلاب على التمييز ونطق بعض الفونيمات في اللغة الإنجليزية، خاصة الفونيمات الصوتية التي تتشابه في النطق. استخدمت الدراسة المنهج الكمي بتصميم تجريبي أولي من نوع اختبار قبلي وبعدي لمجموعة واحدة. تكونت عينة الدراسة من طلاب المرحلة المتوسطة الذين شاركوا في تعلم النطق باستخدام تقنية الأزواج الدنيا. استُخدم اختبار النطق أداةً لجمع البيانات، وشمل عدة تقابلات صوتية، وهي /e/-/æ/، /I/-/i:/، و/o/-/u:/ . تم تحليل البيانات من خلال مقارنة نتائج الاختبار القبلي والبعدي. أظهرت النتائج وجود تحسن دال في قدرة الطلاب على النطق بعد تطبيق المعالجة. بناءً على ذلك، تُعد تقنية الأزواج الدنيا فعالة في تحسين إتقان نطق طلاب المرحلة المتوسطة. تُوصى هذه التقنية للاستخدام في تعليم نطق اللغة الإنجليزية، لأنها تساعد الطلاب على التمييز بين الأصوات بدقة أكبر وتحسين وضوح النطق.

CHAPTER 1

INTRODUCTION

This Chapter will cover the background to the study, the research question, objectives of the research, significance of the study, limitations of the research, and definition of key terms.

1.1 Background of the study

The pronunciation of a word or language is how that word or language, respectively, is spoken (Islamiyah, 2024). Pronunciation refers mainly to the sound patterns concerned with the production of a word. This encompasses how individual phonemes (the smallest units of sound), the intonation (the rise and fall of the voice), and stress (the emphasis placed on certain syllables) all come together in order to produce the spoken manifestation of language. Each language has its set of pronunciation rules that dictates these sound formations. Pronunciation is, therefore, the particular way a word or series of words is articulated when spoken. It incorporates every single proper pronunciation of the individual sounds of that word, including vowels and consonants, and rhythm, stress, and intonation patterns, all of which are crucial elements contributing toward natural speech. Proper pronunciation contributes to clear communication; it allows listeners to catch the intended meaning without misunderstandings. This is also what was explained in Surah Al-Isra verse 106:

﴿وَقُرْآنًا فَرَقْنَاهُ لِتَقْرَأَهُ عَلَى النَّاسِ عَلَى مُكْثٍ وَنَزَّلْنَاهُ تَنْزِيلًا﴾

Meaning: “And We have sent down the Qur’an in stages so that you may recite it to the people slowly and carefully, and We revealed it part by part.”

This verse signifies that the Qur'an was revealed with clear explanations; hence, you can recite it to people calmly and not in haste. In this way, it will be easier to understand and focus on. Generally, mastering pronunciation is among the most challenging parts of a new language to learn but also important. Wrong pronunciation leads to misunderstandings or prevents the native speakers from understanding you. Therefore, pronunciation entails correct sounds and proper pitch and emphasis in effective communication of the intended meaning within a specified linguistic context..

According to Ghanbari & Hashemian, (2014), pronunciation is one of the most important skills in learning a language and communicating effectively. On one side, Nurhalimah, Siti, (2021) points out that pronunciation is among the most important dimensions to develop in achieving articulate speech. This is because it enables the speaker and listener to pronounce the words in the English language correctly and clearly. Therefore, such views explain that good pronunciation is not just important, but it becomes a crucial aspect in terms of language learning and effective communication. In the context of the English language, good pronunciation allows speakers to express themselves with greater clarity and accuracy. Hence, good pronunciation becomes a major concern in the pedagogical models of teaching languages.

Mastery of English phonetics is often the most difficult challenge faced by learners. According to Pourhosein Gilakjani, (2016), this skill is one of the hardest

ones, which needs a lot of time and efforts to be enhanced.. In developing speaking skills, this assertion tallies with Nurhalimah, Siti, (2021) view, which says that pronunciation is the most important in developing speaking skills. This means the aim is for learners to produce words in English correctly and clearly. From both insights, clear pronunciation in English is not an added advantage; it forms the very foundation for effective speaking skills. In developing such skills, which are considered difficult, learners need to put a lot of time and effort into practicing pronunciation. By doing so, they will be able to communicate more clearly and avoid misunderstandings that may come from incorrect pronunciation.

Added to mispronunciation, clear pronunciation of words is a minimal requirement for learner competency and an essential concern in language teaching (Meiliasari et al., 2024). Many learners experience difficulty in pronouncing English because of the great differences between the sound systems of Indonesian and English (Tambunsaribu & Simatupang, 2021). According to Meiliasari et al., (2024) ,this happens because many sounds of English exist outside the learners' native language. Consequently, it can lead to misunderstandings, reduce confidence, and impede overall communicative skills. This becomes a significant challenge for the majority of students, especially the junior high school ones. If junior high school students pronounce sounds, words, and sentences correctly, they can ensure their message is clearly delivered and understood by all listeners, native or non-native speakers (Lubis et al., 2025). Clear pronunciation is important to create good interactions in various communicative situations (Mutia, 2025). This confidence boost is particularly important to junior high school students, who are often at that stage of development where self-consciousness can make them more

reluctant to practice the language. Pronunciation is an indispensable part in an attempt to improve listening comprehension. It is observable from research that there is a clear link between pronunciation drills and the ability to listen to English. With enhanced pronunciation, comprehension and interpretation of spoken language are better as well (Diwaly Muhammed & Bahri Abduljabbar, 2023). In junior high school, it gives a good foundation for later language development if it were built early. It helps them fit into environments where English is the main form of communication, such as in academic and professional settings (Lubis et al., 2025). Pronunciation training has a positive impact on the speaking performance in English. This improves intonation and accent and boosts the overall ability in languages (Ari Wibowo & Nasrullah, 2024)

However, junior high school students sometimes encounter some obstacles in mastering correct English pronunciation. These may significantly reduce their speaking ability. Two important factors that are closely related to such obstacles are the impact of the mother tongue and the lack of opportunities for practicing. The impact of the mother tongue is a common obstacle. Transfer of the phonological rules and sound systems of the students' native language occurs too often when they pronounce English, and these mispronunciations may well be heard. For example, Indonesian students frequently face this problem because some of the English sounds, such as /v/, /ð/, /ʒ/, /θ/, and /z/, do not exist in Bahasa Indonesia. This often causes them to substitute those sounds with the more familiar ones (Yulianti et al., 2025). Such a phonological difference can also show in issues at the level of single sounds and such suprasegmental features as stress, rhythm, and intonation. Students tend to use Indonesian stress patterns in pronouncing

English words (Listyani et al., 2024). Studies reported that the differences in phonological systems between English and students' first language could lead to numerous cases of mispronunciation (Onwochei & Bako, 2024).

A lack of consistent and enough practice is a major barrier. Many junior high school students rarely take part in English speaking activities outside the classroom. Even in class, there may be few chances for focused pronunciation practice (Widiantari et al., 2021). This limited practice means students do not train their articulatory organs enough or build the muscle memory needed to produce unfamiliar English sounds (Aprianoto et al., 2024). Without regular exposure and active production, students can hardly internalize correct pronunciation patterns. As a result of this, speech is often subject to repeated mistakes without the emergence of fluency. This sometimes exacerbates due to low confidence and fear of making mistakes, which then discourages practice (Labad et al., 2024; Zannah et al., 2023). With the increasing conception of English as an international lingua franca, teaching methodology has started to be updated to more interactive ones that enhance phonological awareness. One effective strategy to tackle these challenges is minimal pairs practice.

Minimal pairs represent a well-known and efficient method for the improvement of pronunciation in a foreign language: words paired, differing by just one sound-the smallest unit of sound that can change meaning-and the rest of the word remains constant, such as "ship" and "sheep," "fan" and "van," "rice" and "lice." This, actually, gives an idea of the principle that underlies minimal pairs training: to help learners recognize small phonetic differences that matter for meaning. By the contrasts in these minimal pairs, students learn to hear and

produce sounds that might be problematic because of their first language or lack of exposure (Murphy, J. M., & Baker, A. A., 2015). This technique helps students distinguish between similar sounds (perceptive training) and pronounce them correctly (productive training). For example, an Indonesian speaker might find it hard to tell apart /ɪ/ (as in 'ship') and /i:/ (as in 'sheep') because their native language may not clearly distinguish these vowel lengths or qualities. Through repeated exposure to, and practice with, minimal pairs, learners develop phonological awareness that facilitates the identification and production of target sounds. This, in turn, enhances overall clarity and reduces communication breakdowns (Derwing & Munro, 2015; Thomson & Derwing, 2015). Recent studies continue to show that explicit pronunciation instruction, including the use of minimal pairs, improves learners' understanding and clarity (Lee et al., 2015).

While, according to Qisthia, B, (2023); Wahyuni & Indraswari, (2022) recognize that minimal pairs can improve English pronunciation, there is a significant gap in the literature. This gap is especially clear regarding the specific strategies for using this technique in junior high schools.. Much of the existing research tends to focus on the overall impact of minimal pair drills on pronunciation mastery across different educational levels or specific phoneme distinctions (Wahyuni & Indraswari, 2022). However, there are relatively few detailed studies on the different teaching strategies that teachers use or could use to improve minimal pairs practice for junior high school students. For example, while studies often show that minimal pairs are effective, they rarely examine how to best integrate these techniques into a communicative curriculum, the ideal frequency and duration of practice, the role of technology in supporting minimal

pairs drills, or the most effective feedback methods for this age group. Research by Indriana Dewi Mawarni Marpaung et al., (2023) and Handayani, (2021) discusses student perceptions and general effectiveness but does not explore a comparative analysis of different implementation strategies in depth. In particular, there is a need for more research that 1) identifies and categorizes the various strategies of minimal pairs practice currently adopted or that may be adopted for junior high schools. 2) Compares the different strategies with respect to their effectiveness for the various aspects of pronunciation, such as segmental and suprasegmental features, among junior high school students. 3) Examines the practical issues of challenges and support that each strategy provides during its implementation in real classroom settings, along with problems related to curriculum limits, teacher training, and student involvement. Filling this gap will help give valuable insights to educators and curriculum developers alike by offering evidence-based recommendations regarding strategies for using minimal pairs practice for improving English pronunciation among junior high school students.

This is particularly important in Indonesian educational contexts, concerning the curriculum of the English language and special needs of junior high school students. According to Silabus KTSP 2006, cited in Kurniawati, (2021), the national curriculum for junior high school level English designates an emphasis on communicative competence, speaking clearly. However, as already mentioned, Indonesian students are confronted with unique challenges of pronunciation due to first-language interference and scarce opportunities to be exposed to authentic English pronunciation (Listyani et al., 2024). It is in this respect that this study

responds to the urgent need in Indonesian junior high school to enhance students' practical speaking skills in English. Through its focus on effective minimal pairs practice, the research can offer solid, evidence-based teaching methods supportive of the communicative goals of the curriculum. The paper intends to give some practical guidelines for English teachers in Indonesia who feel sometimes unprepared to teach pronunciation directly (Listyani et al., 2024). These findings will also help the curriculum developers with determining the best ways of incorporating pronunciation, ensuring that the students are equipped with not only vocabulary and grammar but also the essential ability to be clearly understood in the process of communication in English.. This alignment with national educational goals and the direct benefits to both teachers and students highlight the importance of this proposed research.

Among the great number of pronunciation teaching techniques, minimal pairs have long been recognized as one of the most effective ways to enhance learners' phonological awareness and their accurate production of speech. Minimal pairs, or words that differ by only one phoneme (ship/sheep, fan/van), train learners to perceive and produce fine-grained contrasts that are crucial for intelligibility Altamimi, (2015; Derwing & Munro, (2015). A number of studies conducted in different EFL contexts reported that training based on minimal pairs can bring about significant improvements in learners' pronunciation of problematic sounds Hamzah & Bawodood, (2019); Kholid & Haryanto P, (2017). Minimal pairs training is theoretically supported by the Speech Learning Model, by Flege (1995), and the Perceptual Assimilation Model, by Best (1995), which explain how L2 learners acquire new phonetic categories through contrastive perception.

However, despite strong evidence for the usefulness of minimal pairs, a number of gaps still exist in the literature, especially within the Indonesian junior high school context. Most prior research has been conducted with university or adult learners, whose cognitive readiness and linguistic exposure differ substantially from those in secondary school. Available studies that have involved younger learners often apply minimal pairs in very restricted formats-usually through repetition, drilling, or isolated word lists-without integrating listening discrimination, communicative tasks, or technological media which support multisensory pronunciation learning. Few studies likewise adopt robust quasi-experimental designs with control groups, multiple data sources (listening and production), or validated pronunciation rubrics which include intelligibility and consistency.

Moreover, earlier research on minimal pairs tends to focus on consonant contrasts in isolation and rarely explores vowel contrasts, consonant-vowel combinations, and the relationship between segmental accuracy and overall intelligibility. The training duration in earlier research is also generally short (1–2 meetings), which may not be long enough to determine if sustained minimal pairs intervention is effective. Furthermore, studies have yet to explore how minimal pairs could be designed to assist Indonesian junior high school learners in overcoming some specific pronunciation difficulties-particularly those documented in preliminary observations at SMPN 4 KOTA MOJOKERTO, where students struggle to differentiate /v/–/f/, /θ/–/t/, /ʃ/–/s/, and several English vowel pairs.

These conceptual, empirical, and methodological gaps create a clear rationale for conducting a focused investigation on the effectiveness of minimal pairs in improving English pronunciation among junior high school students. The need to address these gaps makes it imperative not only to enhance students' intelligibility and confidence but also to support the Indonesian English curriculum with its emphasis on communicative competence at the secondary school level.

1.2 Research Question

Based on the background above, the research question was formulated as “is there significant improvement in students' English pronunciation ability using the minimal pairs technique in English communication?”

1.3 Research Objective

In line with the research question stated above, the objective of the study is to measure the effect of using the minimal pairs technique on improving students' English pronunciation skills towards English communication in junior high school.

1.4 Significance of the Study

In line with the research objectives, in general, this research provides an easy and practical approach to teaching and learning English for junior high school students. Theoretically, this research contributes to the linguistics section, especially in comparing the pronunciation of each word. Practically, this research provides an example of an instrument in teaching pronunciation for Indonesian junior high school learners that can help teachers to improve the quality of learning

English communication in the classroom. Likewise, this study also provides many examples that support how to pronounce English words correctly to improve students' pronunciation ability in speaking in daily use. The researcher believes that the above significance will be achieved assuming there is a significant effect of using minimal pairs on English pronunciation for junior high school students.

1.5 Scope of The Study

This study focuses on the application of minimal pairs among eighth-grade junior high school students to improve their English pronunciation. The study subjects were 61 students from two classes, VIII H and VIII D in the academic year 2025/2026. The reason why the researcher chose the subjects as mentioned above is that they have studied several types of texts, making them more or less knowledgeable about English words. The treatment was given to the participants through a reading model using an audio recorder based on the types of minimal pairs provided in the vocabulary passage. The treatment was given 2 times in 2 weeks. The measurements were made from 122 recordings extracted from their audio. Each participant contributed to providing three (3) recordings in the pre-test and post-test as data for this study. The identification of effectiveness was measured and identified by using the normalized gain calculation/t-test as well as the effect size test to provide precise results.

1.6 Definition Key Terms

The terms used in this study need to be explained to avoid misinterpretation. These definitions are as follows:

- **English Pronunciation:** This refers to the students' ability to accurately produce English speech sounds (phonemes), as measured by a pronunciation assessment (e.g., a pronunciation test score).

-**Minimal Pairs Practice Techniques:** This denotes the use of word pairs that differ by only one sound (phoneme) to train both auditory discrimination and sound production, such as "ship" and "sheep." These techniques are implemented through specific classroom activities.

-**Implementation Strategies:** This refers to the specific methods employed by teachers to apply minimal pairs practice in the classroom, including but not limited to the frequency of practice, types of activities (listening, repetition, production), utilisation of aids (audio, visual), and the nature of feedback provided.

CHAPTER II

LITERATURE REVIEW

This chapter presents the highlights of what will be covered in this study. Those are pronunciation, media, online dictionaries, and reviews of previous studies. The explanation of thesis is stated as follows.

2.1 Theoretical Pronunciation

The way a language or a specific word or sound is uttered is known as pronunciation (Hornby et al., 2005). According to Richards and Richard (2011), pronunciation is a method for producing particular sounds. The pronunciation of letter sounds in words, as well as syllable stress on certain sections of words, frequently changes the meaning and context of the words, irreversibly changing the intended meaning of the statement being transmitted (Kobilova, 2022). It implies that because pronunciation has a big impact on how well listeners comprehend a speaker's message, it is essential in oral communication. Accurately making sounds as intended in a given language is just as important as accurately articulating them. It includes accurately making sounds in a given language as intended in addition to accurately articulating them. This component is essential to oral communication since it has a direct effect on the message's clarity and the listener's capacity to understand its intended meaning.

According to Salim et al. (2020), presents that pronunciation is an important aspect in which children should invest time and effort since it has implications in comprehension and communication. Once the students have proper pronunciation, they are confident enough to speak out in English, especially in formal or even

academic situations. This would help avoid misunderstandings that might occur due to certain mispronunciations of words. Additionally, their communication with native speakers would also improve.

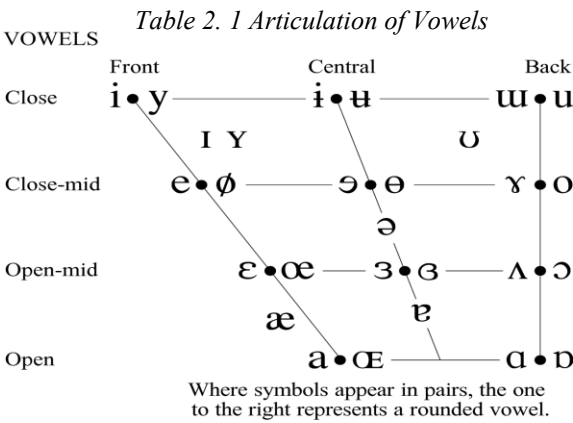
2.1.1 English Pronunciation

Pronunciation is an important element of English language ability. It involves the production and perception of sounds to clearly convey meaning. According to Pourhosein Gilakjani, (2016) effective English pronunciation includes more than just saying individual sounds. It also requires using the right stress and intonation patterns, which are vital for clear and natural communication. The main aim of teaching pronunciation is to ensure intelligibility, not to develop a native-like accent.

The structure of the pronunciation of English is considered to be based around two main elements. These are suprasegmental features, which are explained as the prosodic elements of speech such as stress, rhythm, and intonation, and segmental features, which are made up of individual units of sound or phonemes, the vowels, and consonants (Kelly, 2000). According to Pennington & Rogerson-Revell (2019) provide a more complete view of the suprasegmental level in discussing the linking, coarticulation, tone, and overall voice quality in connected speech. To understand how speech sounds function to convey meaning, it is crucial to establish the concept of phonemic contrast. As stated by Peter Ladefoged (2001) in his foundational work on phonetics, a phoneme is the smallest structural unit in the sound system of a language that can distinguish one word from another. Ladefoged underscores that speech sounds are defined by specific Articulatory Features, which include the place of articulation, manner of articulation, and specific acoustic lengths (vowel

duration). According to Ladefoged, languages maintain a systematic balance of Phonological Contrasts. When two words differ by only a single phonetic feature—known as a minimal pair—the contrast bears a *functional load* that alters the semantic definition of the utterance (e.g., distinguishing the high-front tense vowel /i:/ from the lax vowel /ɪ/). If a learner fails to execute the precise articulatory posture required for a specific feature, the phonemic contrast collapses, resulting in a critical breakdown of communication. As such, mastering the pronunciation of English begins with learning about its segmental elements since vowels and consonants are the basic units to create proper spoken English.

2.1.2 Vowel



Vowels, as part of linguistics, are the phonetic sounds that occur when the vocal tract is open, allowing continuous airflow from larynx to lips (Ericsson Nordgren, 2019). On the other hand, a diphthong is one kind of vowel sound. It involves modifying two sounds within the same syllable. According to Aronson, (2024), a diphthong is phonetically two vowels together; therefore, a diphthong is different from a monophthong, when only one single vowel sound is generated,

and triphthong due to three vowel sounds. Further, it explains that diphthongs involve the first vowel gliding into the second vowel in one syllable. Common examples include /aɪ, aʊ, eɪ, oʊ, ɔɪ/ (Demirezen, 2020). According to Azura Fazira et al., (2023) she points out that there are five diphthongs and eight vowel types in English. However, However, highlights that diphthongs can be challenging for English as a foreign language speakers, especially if the native language has few diphthong sounds. Pronunciation studies show that diphthongs pose significant challenges for language learners, particularly those moving from languages with simpler vowel systems.

Yule (2010), the phonetic classification of vowels depends on three articulatory dimensions: the vertical position of the tongue, that is, its height, which may be high, mid, or low; the horizontal position of the tongue, or tongue backness, which may be front, central, or back; and the shape of the lips or lip rounding, which may be rounded or unrounded. Thus, these factors combine in various ways to produce distinct vowel qualities. The vowel /i:/ in the word "seat" is a high, front, and unrounded vowel; the /u:/ in "food" is a high, back, and rounded vowel. Other vowels like /æ/ ("cat"), /ʌ/ ("cup"), and /ɔ:/ ("saw") are similarly defined by their specific position in this articulatory grid.

Accurate articulation of vowels will help individuals to produce speech clearly. As Kent & Rountrey, (2020) linguistic and dialectic variables associated with vowel articulation occur very early in an individual's life. For second-language learners, such understanding and use of these vowel categories are crucial because even minor pronunciation errors can lead to misconceptions or alter the meaning

of a statement entirely. Their proper production is, therefore, critical for clear communication of articulation in English.

2.1.3 Consonant

Table 2. 2 Articulation of Consonant

Manner of Articulation	Bilabial (Both Lips)	Labiodental (Lip/Teeth)	Dental (Tongue/Teeth)	Alveolar (Tongue/Ridge)	Post Alveolar (Back of Ridge)	Palatal (Hard Palate)	Velar (Soft Palate)	Glottal (Throat)
Stop / Plosive	/p/ Pin /b/ Bat			/t/ <i>top</i> /d/ <i>dog</i>			/k/ Cat , /g/ Goat	
Affricate					/tʃ/ <i>chair</i> /dʒ/ <i>judge</i>			/h/ House
Fricative		/f/ fun /v/ van	/θ/ think /ð/ this	/s/ <i>see</i> /z/ <i>zoo</i>	/ʃ/ <i>she</i> /ʒ/ <i>measure</i>			/h/ <i>hat</i>
Nasal	/m/ van			/n/ nose			/ŋ/ <i>sing</i>	
Approximant				/r/ <i>red</i>		/j/ <i>yes</i>	/w/ <i>we</i>	
Lateral				/l/ <i>light</i>				

This is the table of articulation consonants. Recent studies about English consonant articulation show that understanding the place and manner of articulation plays a key role in phonetics and teaching pronunciation. According to Recasens & Rodríguez, (2016) using ultrasound research, found that each consonant has a different level of resistance to coarticulation, especially coronal sounds like alveolar

and palatal. These variations determine the way in which sounds link to each other and serve to explain how the position of speech organs creates different sounds. (Tabain et al., 2020) confirmed this observation by using ultrasound and formant analysis and demonstrated quite evident differences in the tongue movement and acoustic patterns among stop, fricative, and approximant manners of articulation. Both studies are suggestive that consonantal classification by place and manner of articulation is a necessary prelude to considering the physical production of English sounds.

Consonant sounds are produced with considerable constriction of the vocal tract, and they cause audible friction or complete stoppage of airflow. This feature differentiates them from vowels (Proctor, 2021). these sounds are referred to depending on four aspects: their airflow mechanism, voicing state, and place and manner of articulation. However, it is cumbersome for a non-native speaker to try and articulate some consonants.

In any L2 learning, Suzukida & Saito, (2022) pointed out that correct pronunciation of consonants, particularly non-native consonants such as /θ/ and /ð/, is one of the essential elements affecting fluency and intelligibility for foreign speakers. In the field of Second Language Acquisition (SLA), the errors produced by language learners are not merely random mistakes but are highly systematic. According to Selinker's (1972) seminal theory of Interlanguage, when adult or teenage L2 learners attempt to express meaning in a target language, they create a psychologically distinct linguistic system that structurally stands between their native language (L1) and the target language (L2). One of the psycholinguistic

processes responsible for shaping this interlanguage is Language Transfer or Cross-Linguistic Influence. Selinker emphasizes that learners rely heavily on their existing L1 cognitive linguistic framework to interpret and produce L2 structures. When the phonological rules of L1 heavily contradict or differ from L2, *negative transfer* (or interference) occurs. In the context of pronunciation, Indonesian EFL learners instinctively substitute foreign, non-existent English phonetic attributes with the closest available phonetic equivalents in their native Indonesian repertoire. Moreover, Levis (2021) supported the idea of pronunciation studies with regard to learners' L1; any difference in learners' native consonant systems may result in the ability to articulate certain sounds. Similarly, Kaharuddin et al., (2020) reported that Indonesian learners mispronounce fricative and dental sounds, since those consonantal sounds are not available in their first language. Therefore, practical teaching of pronunciation must be highlighted in terms of an articulatory description regarding the tongue position, lip movement, and airflow based on the description in the consonant chart.

Theoretically, Jaber explained that mastery of three main features that characterize English consonants, such as place, manner, and voicing, would help learners improve pronunciation accuracy and enhance their understanding of the phonetic system of English. Wiranda et al., (2023) found a strong connection between consonant mastery and phonological awareness, showing that understanding articulation helps students recognize sound differences between words. More recently, Maulidya et al (2022) showed that articulatory-based training greatly improves students' ability to produce English consonant sounds. By practice the correct position of speech organs according to *place* and *manner of articulation*,

students can reduce pronunciation errors caused by their first language. Overall, these studies show that the consonant chart is not only a descriptive tool in phonetics but also a practical guide for modern pronunciation teaching, helping EFL learners improve their sound accuracy and speech clarity.

2.2 Difficulties of Indonesian learners

Table 2. 3 Difficulties of Indonesian Learners from Previous Study

Problem Sound (Target)	Common Substitution	Example Word	Learners' Pronunciation	Type of Error / Cause	Sources
/θ/ (voiceless dental fricative)	/t/ or /d/	<i>thought, thief</i>	/tɔ:t/, /ti:f/	Substitution due to L1 interference (Indonesian lacks /θ/)	Hidaytullah et al., 2024
/ð/ (voiced dental fricative)	/d/ or /z/	<i>the</i>	/də/, /zə/	Difficulty producing voiced dental sounds	Hidaytullah et al., 2024

/ʃ/ (voiceless palatal fricative)	/s/ or incorrect vowel pairing	<i>she</i>	/si:/, /ʃei/	Inconsistent articulation of voiceless fricative	Hidaytullah et al., 2024
/ʒ/ (voiced palatal fricative)	/z/ or /ʃ/	<i>measure</i>	/meza/, /mefa/	Confusion with similar sounds /ʃ/ and /z/	Luthfianda et al., 2024
General Pronunciation	—	Various English words	—	Strong influence of native language (L1 interference)	Farhat Jahara & Hussein Abdelrady, 2021
/æ/ (front open vowel)	/e/ or /a/	<i>cat</i>	/ket/ or /kat/	Indonesia lacks /æ/ vowel	Data summary, 2022
/ʃ/ (voiceless	/s/	<i>she, ship</i>	/si/, /sip/	L1	Amalia et al.,

palatal fricative)				interferen ce; lack of exposure	2023
/tʃ/ (voiceless affricate)	/s/ or /ʃ/	<i>chair</i>	/ser/ or /fer/	Similar sound confusion	Amalia et al., 2023
/ʒ/ (voiced palatal fricative)	/z/ or /ʃ/	<i>measure</i>	/meza/, /meʃa/	Absence in Indonesia n sound inventory	Amalia et al., 2023
/v/ (voiced labiodental fricative)	/f/	<i>van</i>	/fan/	No distinction between /f/ and /v/ in Indonesia n	Sayogie & Adbaka, 2022

From the table showed Many students who learn English as a foreign language (EFL) have problems with pronunciation. According to Farhat Jahara & Hussein Abdelrady, (2021) , these problems often happen because of the influence of the learner's first language (L1). When the sounds in English are very different

from the sounds in their native language, students usually replace the difficult English sounds with similar ones from their own language. This habit can cause mistakes that are hard to fix without special pronunciation practice.

From this study Hidaytullah et al., (2024) found that Indonesian students often make specific errors. For example, the voiceless dental fricative /θ/ in words like *thought* /θɔ:t/ or *thief* /θi:f/ is usually pronounced as /t/ or /d/. The voiced dental fricative /ð/ in *the* /ðə/ is also often said as /də/ or /zə/. These mistakes happen because it is difficult for learners to make dental sounds, which need the tongue to be placed between the teeth — something that does not exist in the Indonesian sound system.

Students also have trouble with palatal fricatives. The sound /ʃ/ in *she* is sometimes pronounced as /s/ or /ʃeɪ/. Another sound, /ʒ/ as in *measure*, is sometimes changed to /z/ or /ʃ/. Luthfianda et al., (2024) explained that this problem happens because of the influence of the first language and a lack of experience with English sounds.

Indonesian learners encounter systematic pronunciation problems due to phonological differences between Indonesian and English. documented that 75-97% of junior high school students struggled with specific English sounds, with 97% having difficulty with /ð/ sound, 75% with /æ/ and /ə/ sounds, and 66% with /ʃ/ and /tʃ/ sounds. The primary causes identified were sound system differences and mother tongue interference. Sayogie & Adbaka (2022) provided detailed analysis showing that students particularly struggled with consonant minimal pairs including /d/ & /ð/, /f/ & /v/, and /ʃ/ & /tʃ/. The study revealed that students consistently

substituted unfamiliar English consonants with familiar Indonesian sounds - for example, converting /v/ to /f/, /ð/ to /d/ or /t/, and /z/ to /s/. These errors occurred because “students mostly struggled with their pronunciation when uttering consonants that do not exist in the Indonesian language. Amalia et al., (2023) confirmed that Indonesian students have particular difficulty with fricative consonants /v/, /θ/, /ð/, /f/, /ʒ/, /tʃ/, and /dʒ/, as well as challenges distinguishing between voiced and voiceless consonants.

In conclusion, these studies show that the main reasons for pronunciation difficulties are the strong effect of the native language and the limited exposure to English pronunciation. To improve their speaking, learners need focused phonetic training and more listening practice to become clearer and more accurate in their pronunciation.

2.2.1 English speech sounds that are potentially problematic for Indonesian English language learners.

Table 2. 4 Pronunciation Difficulties among Indonesian EFL Learners

Category	Problematic Sounds	Type of Error/ Difficulty	Causes	Sources
Consonants (fricatives & affricates)	/z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, /v/, /θ/, /ð/, /r/	Substitution errors (e.g., /v/ → /f/, /ð/ → /d/, /ʒ/ → /s/), difficulty in articulation, mispronunciation	Phonological differences between English & Indonesian; L1	Anjani et al. (2023), Habibi (2016)

		of voiced/voiceless pairs	interference	
Aspirated consonants	[p], [k], [g] (especially in stressed or final positions)	Failure to produce aspiration; pronouncing unaspirated sounds instead	Lack of aspiration feature in Indonesian phonology	Nur'Aini (2024)
Vowels (pure vowels)	[ɪ], [i:], [ɛ], [ʊ], [ʌ], [ɜ:], [ɒ], [ɔ:], [ə]	Substitution or distortion; vowel insertion between consonants	Differences in vowel inventory; limited exposure to English sounds	Donal (2016)
Diphthongs	[aʊ], [aɪ], [eɪ], [ɪə], [əʊ]	Monophthongization (e.g., [aɪ] → [a:]); failure to glide smoothly between vowel targets	Influence of Indonesian monophthong system; L1 transfer	Donal (2016)
General patterns	Across consonants	Inconsistent pronunciation;	Mother tongue	Synthesized from multiple

	& vowels	difficulty maintaining accuracy despite higher English proficiency	interference; lack of focused phonetic practice	studies
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Indonesian EFL learners often face systematic pronunciation problems because the sound systems of Indonesian and English are very different. Many English consonants, such as /v/, /θ/, /ð/, /ʒ/, and /tʃ/, do not exist in Indonesian, so students usually replace them with familiar sounds from their mother tongue. For example, they may pronounce *very* as *fery* or *this* as *dis*. These substitutions show that native language habits strongly affect English pronunciation.

Aspirated consonants like [p], [k], and [g] are also difficult. In English, these sounds have a small burst of air when pronounced, especially at the beginning of stressed syllables (like *pen* or *cat*). Indonesian speakers often drop this aspiration; hence, to the native listener, their pronunciation may sound less natural.

Other challenges involve vowels and diphthongs. Since Indonesian carries fewer vowel sounds than English, pronunciation mistakes involving confusion and substitution are common: "ship" instead of "sheep" and "cot" instead of "caught." The diphthongs, such as [aɪ] in "time" or [aʊ] in "now," are usually simplified into a single vowel sound without the English glide.

Indonesian EFL learners have difficulties with some specific English speech sounds due to L1 interference and differences in phonologies between Indonesian and English. Consonant sounds are a particular challenge, including such problematic sounds as /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, /v/, /θ/, /ð/, and /r/ (Anjani et al., 2023). There are quite particular obstacles when it goes to aspirated consonants: [p] in the case of a stressed syllable, [k], and [g]-in the case of a word-final position-have the lowest success rates since these sounds do not exist in Indonesian phonology (Nur'Aini, 2024). Advanced learners still struggle with consonant substitutions dealing with [v], [ð], and [s] sounds (Habibi, 2016).

Vowel production also presents some challenges, such as the substitution of pure vowels like [ɪ], [i], [ɛ], [ʊ], [ʌ], [ɜ:], [ɒ], [ɔ:], and [ə]; vowel insertion between consonants. Diphthongs are especially problematic; the most problematic is [aʊ]. Issues occur in simplifying the [aɪ], [aʊ], [eɪ], [ɪə], and [əʊ]. This is due to mother tongue interference, partial knowledge of the English sound systems, and failed transfer from the borrowed English word (Donal, 2016).

That the Indonesian EFL learners continue to have problems with pronunciation right now suggests the impact of their native language on English pronunciation. The range of consonant and vowel deviations, from aspirated releases to simplified diphthongs, illustrates that the acquisition of English phonology is beyond merely knowing the vocabulary or grammar of the language. This calls for structured phonetic training and regular practice, complemented by feedback, to assist learners in reducing the impact of L1 interference on their pronunciation.

2.3 Definition of minimal pairs

Minimal pairs are the patterns of words that sound similar, only with a difference in one phoneme (Altamimi, 2015). Such utterances as ship/sheep and think/sink are handy tools in linguistics courses, theoretical phonology, and pronunciation teaching (Levis, & Cortes, 2008). Studies confirm that minimal pairs help non-native speakers try to enhance their pronunciation of English through instruction. They will also help to give the learners phonological awareness and accuracy in pronunciation (Asmaul Husna et al., 2023)

Works on the minimal pair of consonants like /p/ and /b/, /s/ and /z/, and /t/ and /d/ discuss the implications for learners in making small phonetic differences observable to improve their speech (Asmaul Husna et al., 2023). However, analysis of material used in teaching shows that words of many minimal pairs are rarely heard in spoken English, which raises questions in respect to communicative usability (Levis, & Cortes, 2008). Going beyond linguistics, minimal pairs do have relevance in mathematics, especially in performing a study related to residue transcendental extension (Dutta, 2021)

These recorded minimal pairs are essential in developing phonological awareness and enhancing pronunciation among non-native learners of English. They enable learners to recognize and use the fine sound contrasts, which increases the accuracy of articulation. However, the very presence of low-frequency words in the lesson materials raises questions concerning their actual communicative value. Nevertheless, minimal pairs do remain useful for the purpose of language learning and phonology, aside from other fields like mathematics.

2.4 The effectiveness of minimal pairs for learning English language pronunciation.

A wide body of research supports the argument that minimal pairs are an effective tool in enhancing the pronunciation of EFL learners. Altamimi (2015) used an action research approach, targeting 13 male Saudi Arabian learners. Minimal pairs instruction was given for 15 minutes, four times a week, over four weeks, on five selected consonant sounds (/p/, /ʒ/, /v/, /tʃ/, and /ŋ/). Significant improvement was found on these traditionally problematic consonant sounds. Hamzah & Bawodood, (2019) reported similar findings, whereby five-week minimal pairs drills with ten undergraduate students from Yemen resulted in marked pronunciation improvements in the five tested consonant sounds. They developed a questionnaire to assess the development of their pronunciation difficulties from pre-test to post-test. Kholid & Haryanto P, (2017) used a quasi-experimental design comparing minimal pairs to reading aloud. These researchers reported statistically significant enhancements in pronunciation ability: $p = 0.025$. Tuan (2010) provided six common areas of pronunciation issues concerning Vietnamese EFL learners. He reported that both teachers and students valued highly the teaching effectiveness of minimal pairs for distinct English phonemes. He utilized mixed-methods research, such as questionnaires, interviews, and spectrogram analysis.

Many studies confirm that minimal pairs are very effective in improving English pronunciation for EFL learners. Consistent findings across different contexts, including Saudi Arabian, Yemeni, and Vietnamese learners, show significant progress in pronouncing challenging consonant sounds after focused minimal pairs instruction. This method not only reduces pronunciation errors but

is also well-liked by both teachers and students for its clear benefits in teaching distinct English sounds.

2.5 The Process of How Minimal Pairs Can Increase Pronunciation

The use of minimal pairs can significantly help students improve their pronunciation skills. Minimal pairs are word pairs that sound very similar but differ in just one sound or phoneme. This method lets learners compare sounds directly and notice small differences in pronunciation (Indriana Dewi Mawarni Marpaung et al., 2023). Many studies focus on sounds that are challenging for learners, such as /p/, /v/, /z/, /tʃ/, and /ŋ/ (Mohd Hilmi Hamzah et al., 2019). They also look at vowel sounds that can be confusing (Lubis et al., 2025). The learning process usually follows a structured plan that lasts four to five weeks. Sessions are short, extending for a period of 15-45 minutes, and take place three or four times a week. An action research model used by researchers involves planning, acting, observing, and reflecting to measure improvement.

Results from various studies show that minimal pairs can effectively improve pronunciation. For instance, Kholid & Haryanto P, (2017) found significant improvement in the students' pronunciation performance, with $\text{Sig} = 0.025 < \alpha = 0.05$. Another study by Rahman, 2018, which reported the experimental group as performing better than the control group with a mean score of 2.96 to 2.2, respectively, with a t-test value of 5.84. The technique instills in students the ability of phonological awareness, knowing where sounds are produced and how they contrast (Abril, 2019). This increases their sensibility to produce clearer and more confident speech (Asmaul Husna et al., 2023). Students also show positive

responses to practicing with minimal pairs. They said it would provide a way for them to correctly pronounce and communicate more actively in class (Indriana Dewi Mawarni Marpaung et al., 2023). From an applied perspective of Second Language Acquisition (SLA), the mastery of L2 phonology requires more than just mere exposure; it demands structured cognitive processing. Applied SLA theories (Ellis, 2008; Gass & Selinker, 2008) assert that for language acquisition to take place, learners must move through the stages of Input, Noticing, and Output. In regular classroom settings, input is often implicit, causing learners to bypass subtle phonetic variations. Therefore, applied SLA perspective advocates for Form-Focused Instruction (FFI) and *Input Enhancement*. By isolating problematic sound contrasts through targeted pedagogical techniques like Minimal Pairs, teachers actively draw learners' focal attention to linguistic forms that might otherwise go unnoticed. This deliberate focus assists learners in restructuring their interlanguage phonology, transforming comprehensible input into accurate articulatory output.

Based on previous research and the theory, this approach has been repeatedly successful for different learners, including Arabic EFL students (K. Altamimi et al., 2015), Yemeni learners (Hamzah & Bawodood, 2019), and Indonesian students learning Arabic (Baso, 2022). All this attests to the fact that pronunciation practice with the use of minimal pairs is flexible and appropriate in numerous learning situations.

2.6 Some research related to the topic of the effectiveness of minimal pairs for acquiring English language pronunciation.

Research has consistently shown that minimal pairs are effective in enhancing EFL learners' pronunciation of English. Minimal pairs, word patterns

that differ only in one phoneme, have shown impressive results across different populations (Altamimi, 2015). A different study involving Arabic-speaking students showed that instruction of minimal pairs for four weeks greatly improved the pronunciation of such problematic English consonants like /p/, /ʒ/, /v/, /tʃ/, and /ŋ/ (Altamimi, 2015). Also, Yemeni EFL learners demonstrated significant improvements in the same above-mentioned phonemes after five weeks of minimal pairs drills, with pronunciation difficulties decreased from pre-test results to post-test results (Hamzah & Bawodood, 2019).

The superiority of minimal pairs is further supported by comparative research, where experimental groups that employed the use of minimal pairs significantly outperformed the control groups using the method of reading aloud (Kholid & Haryanto P, 2017). The qualitative observations support the fact that minimal pairs raise students' awareness of the origin of sounds and develop their skills of phonemic differentiation, which leads to better pronunciation accuracy (Abril, 2019). These findings consistently support minimal pairs as an effective pronunciation teaching strategy across various EFL contexts.

This minimal pair research has, therefore, been an efficient and reliable approach toward enhancing the English pronunciation of EFL learners. This technique works repeatedly to extend the ability of the learner to identify and correctly produce those phonemes that are difficult in many studies and learner groups. Furthermore, comparative and qualitative evidence shows that minimal pairs outperform traditional approaches such as reading aloud and provide higher levels of phonological awareness, thus constituting a worthy teaching tool for pronunciation across different educational contexts.

2.7 What are the differences between your own research and other previous research

Recent studies, such as Isnani et al. (2016) and Nur & Rahman (2018), reveal that the practice of minimal pairs significantly assists students in differentiating similar consonant sounds and producing them correctly. This type of exercise focuses on specific problematic areas of pronunciation, enabling students to progressively correct their phonological errors. Their findings are supported by research conducted by Uktir and Sherali (2021), which indicated that the use of minimal pairs improves not only consonantal pronunciation but also enhances listening and vocabulary skills. It describes the changes in airflow or its obstruction during the pronunciation of consonants. Plosives, fricatives, affricates, nasals, and approximants are categories that identify various manners of sound production and can, in turn, form minimal pairs (Koutchadé & Adjibi, 2021).

These papers explore various means of distinguishing one's own work from prior work in a range of disciplines. Cereci & Karakaya (2018) identify gaps between industry-oriented software development methodologies and university research projects. They advocate for new methodologies better aligned with academic contexts using qualitative interviews and Grounded Theory analysis. Doran et al. (2018) examine differentiation processes, focusing on how tourists perceive their own motivations to travel relative to the motivations of "other" or "typical" tourists. They show conscious distinctions, although these do not necessarily align with the perceived desirability of the motivations. Hart (1999) provides basic guidance to the literature review process. He highlights how researchers use prior studies to locate gaps, refine research questions and establish

rationale for current studies. Kozan & Caskurlu (2018) demonstrate this process by conducting a literature review of studies focused on the Community of Inquiry framework. They identify four new forms of presence and seven dimensions but point out theoretical, methodological and empirical gaps requiring future interest to further online learning research.

While previous research demonstrates that minimal pairs are effective in improving pronunciation, several gaps are apparent. Most prior studies investigated university students or adult EFL learners. In fact, not so many studies have explored the effectiveness of minimal pairs among junior high school students, whose basic pronunciation is still being developed. Furthermore, earlier studies have relied too heavily on traditional activities such as repetition and drilling without using digital tools or interactive media to make learning more interactive. Another limitation pertains to the scope of research, which focused on problematic consonant sounds such as /p/, /v/, /z/, /tʃ/, and /ŋ/. The effectiveness of minimal pairs on vowel sounds, combinations of consonants, and vowels remains understudied. Moreover, there is little attention given to motivating learners, building students' confidence, and creating class participation whenever using minimal pairs. Current studies also tend to rely on controlled tasks, such as word-level recognition or production, rather than real-world communicative contexts. Therefore, the present study will fill these gaps by applying minimal pairs in a junior high school setting, merging them with digital learning media, and investigating improvements not only in pronunciation but also in students' attitudes and motivation throughout the learning process.

The present research goes beyond prior studies on minimal pairs in several conceptual, empirical, methodological, and contextual ways. First, conceptually, most previous studies on minimal pairs focused narrowly on particular isolated consonant contrasts, such as /p–b/, /f–v/, /tʃ–ʃ/, or /θ–t/, and measured usually only the learners’ ability to articulate single sounds. Very few treated pronunciation as a multi-component construct that involves perceptual discrimination and productive accuracy; neither did they include vowel contrasts or consonant–vowel combinations that Indonesian learners are also struggling with. Second, empirically, the majority of minimal pair studies in Indonesia were conducted at the university level, leaving junior high school learners largely underrepresented despite their distinct developmental needs and limited exposure to English phonology. Their interventions were also generally short in duration, often no more than one or two classroom meetings, and seldom integrated a combination of listening discrimination, guided articulation, and controlled production within a single instructional cycle. Methodologically, existing research often relied on one-group pre-test–post-test design, unvalidated pronunciation assessments, and researcher-only scoring analyses, which were typically limited to pre- and post-test comparisons of simple means. In contrast, the present study employs a quasi-experimental design with validated instruments developed through Aiken’s V and pilot testing, includes both listening and production tasks, and enlists two independent raters whose scoring reliability was measured using ICC. Extra analyses of normalized gain and effect size strengthen the rigor and interpretability of the findings. Contextually, previous Indonesian research has not satisfactorily addressed junior high school students’ specific pronunciation needs, particularly

those found at SMPN 4 Kota Mojokerto where learners demonstrate persistent difficulties in differentiating the sounds /v/–/f/, /θ/–/t/, /ʃ/–/s/, and several vowel contrasts. Few studies in similar contexts used audio-based minimal pairs in order to enhance perceptual exposure, which this study integrates to support more effective phonological learning. In aggregate, these conceptual, empirical, methodological, and contextual differences indicate that the present study moves beyond the scope of prior research and presents a far more comprehensive, rigorous, and contextually relevant investigation of the effectiveness of minimal pairs in improving junior high school students' English pronunciation.

CHAPTER III

RESEARCH METHOD

3.1 Research Design

In this research, quantitative methods are used. According to Creswell and Creswell (2018), quantitative studies provide numeric estimates of population values based on data collected from samples. Quantitative approaches focus on carefully measuring a parsimonious set of variables to answer theory-guided research questions and hypotheses. In this study, quantitative methods are applied to measure the effect of using the minimal pairs technique on improving students' English pronunciation skills for effective communication in junior high school. Experimental research belongs to quantitative methodology, and it includes three main designs: pre-experimental, true experimental, and quasi-experimental.

A quasi-experimental design is used in this research. Three standards define a quasi-experiment: (1) the existence of a control group, (2) random selection is applied to choose the subjects, and (3) a pre-test is administered to determine the initial proficiency of both groups. Based on these criteria, the researcher will use a quasi-experimental approach to examine how effectively students learn using minimal pairs.

In this research, the researcher used two classes: an experimental class and a control class. Both classes take a pre-test and a post-test; however, only the experimental class will receive the treatment. In the experimental class, the researcher used the minimal pairs technique, while in the control class, the

researcher applied the lecturing technique to teach the same topic. The table below presents the design of the quasi-experimental study.

Table 3. 1 Research Design

Class	Pre-Test	Treatment	Post-Test
Control Class	T1	-	T2
Experimental Class	T1	√	T2

3.2 Variable of The Research

In this research there were two variables, those are independent variable and dependent variable. The independent variable is Minimal Pairs (X) and the dependant variable is the increase pronunciation (Y). The Researcher wants to examine the effectiveness of using minimal pairs in increasing students master pronunciation.

3.3 Time of Setting of The Research

This research conducted in SMPN 4 KOTA MOJOKERTO, Which located in Kranggan, Mojokerto City. This Research focuses on the eight grade of this school in the second semester of the 2025-2026 academic year, This research took five meetings in experimental and control class. The table below illustrate the schedule of this research.

Table 3. 2 Schedule of Research

No	Activity	Date
1.	Observation	23 Januari 2026

2.	Pre- Test	3 Februari 2026
3.	Treatment 1	4 Februari 2026
4.	Treatment 2	10 Februari 2026
5.	Post Test	11 Februari 2026

3.4 Populating and Sample of The Research

According to Mushofa et al. (2024) Population refers to the entire target of research, while the sample is a part of the population chosen to represent it. The sample of this research are two classes. The first class is experimental class which teaches student pronunciation by minimal pairs. Another class is control class which teaches student pronunciation by lecturing technique.

The object of this study is the eight-grade of SMPN 4 KOTA MOJOKERTO. The researcher used two classes those are VIII H as the experimental class which is consist of 30 students (17 male students and 13 female students). and VIII D as control class which consists of students (17 male students and 14 female students). Those classes have same characteristic because first, their level of proficiency is almost same this is due to their average scores. Second, the number of the student in the class is almost same, the last one, the teacher of English is same.

3.5 Research Data

3.5.1 Primary Data

Primary data sources or can be called the main data source, is information that is firsthand by researcher or individual directly from the source. The primary data

obtain is the score of tests given. The tests are conducted by pre-test and post-test for both experimental and control class students.

3.5.2 Secondary Data

Secondary data was additional data used to strengthen primary data. This data was obtained from journals, articles, official written documents, and books. In this study, the researcher took secondary data from journals, books, and several articles.

3.6 Research Instrument

A research instrument is a tool needed by researchers to make data collection easier. According to Creswell & Creswell, (2018), a research instrument is a tool used to measure the variables or characteristics being observed. In this study, the researcher used Pre-Test & Post-Test 25 minimal pairs in vocabulary as the main research instrument.

Table 3. 3 Scoring Rubric

No.	Aspect of Pronunciation	Number of Question	Quality	Score
1.	Consonant	1-6, 21,22,24,25	10	10
2.	Vowel	7-17,18-20,23,25	15	15
Total			25	25

3.7 Validity and Reliability of The Research

Since testing procedure for assessing students' abilities, the researcher carried out an effective test to ascertain whether the tests are beneficial and usable to gauge

the growth of the students' understanding of pronunciation, ensuring that the test findings are valid and trustworthy. The researcher used validity and reliability tests to analyze the test provided to the students as a result.

3.7.1 Validity

a. Construct validity

Construct validity refers to the extent to which a measurement instrument truly measures the theoretical construct it is intended to measure (e.g., pronunciation mastery) and behaves in a manner consistent with the theory (Wang et al., 2025). In this study, the instrument was designed to measure the construct of students' pronunciation mastery, which includes the following components are Segmental accuracy (correct production of phonemes), Phoneme discrimination (ability to distinguish minimal pairs), Intelligibility (how easily a listener understands the student), and Consistency (stable correct production across contexts) These components reflect current research in pronunciation assessment, where intelligibility is emphasize as a core criterion and both segmental and suprasegmental features are included (Babaeian, 2025)

To establish construct validity in this study, the following steps were undertaken the theoretical framework of pronunciation mastery was drawn from recent literature on pronunciation assessment (including segmental & suprasegmental features). The test items and scoring rubric were designed to align with that framework: minimal pairs selected to target problematic phonemes for Indonesian EFL learners, speaking tasks designed to measure discrimination, and rubric criteria designed to measure intelligibility and consistency. Although formal

factor analysis (such as CFA) was not feasible due to sample size limits, the instrument's structure was compared with analogous validated instruments in recent studies (e.g., studies on pronunciation tests and instrument validation). The results of pilot testing were reviewed to check whether the items produced results consistent with the expected theoretical relationships (for example, better phoneme discrimination associated with better production scores). By aligning the instrument's components with theory and ensuring the items reflect that construct of pronunciation mastery, the construct validity of this instrument is supported.

b. Content Validity

The content validity of the pronunciation instrument used Aiken's V, which is suitable for measuring expert agreement on the relevance of each test item. Three experts in English education and pronunciation assessment were invited to evaluate the instrument. They rated each item using a 4-point scale: 1 = not relevant, 2 = slightly relevant, 3 = relevant, and 4 = highly relevant. The Aiken's V value for each item ranges from 0 to 1. A value of 0.80 or higher shows that the item is valid. The table below is the results of validating the instrument.

Table 6. Results of the Pre Test Validity

Scale	Rater 1	Rater 2	Rater 3	S1	S2	S3	ΣS	V	Conclusion
Q1- 25	87	94	96	86	93	95	274	30.44444	Valid

Table 7. Results of the Post Test Validity

Scale	Rater 1	Rater 2	Rater 3	S1	S2	S3	ΣS	V	Conclusion
Q1-25	87	96	97	86	95	96	277	30.77778	Valid

According to the calculation, all items in the minimal pairs instrument received V coefficients above the accepted threshold. This means that the test items are suitable and representative for measuring students' pronunciation of target sounds.

3.7.2 Reliability

Following content validity, the instrument's reliability is measured by internal consistency. The pronunciation instrument consists of Vocabulary items scored with a rubric, and Cronbach's Alpha was used. According to Cohen et al., (2011), There are four categories of reliability tools:

- a. If the alpha Cronbach score > 0.90 : very reliable.
- b. If the alpha Cronbach score is $0.70 - 0.90$: reliable
- c. If the alpha Cronbach score is $0.60 - 0.70$: reliable enough
- d. If the alpha Cronbach score is < 0.60 : low reliable

Table 3. 4 Reliability of Pre-Test

Cronbach's Alpha	N of Items
0.773	25

Table 3. 5 Reliability of Post-test

Cronbach's Alpha	N of Items
0.813	25

An alpha value of 0.70 or above is considered reliable for educational research. The analysis showed that the pronunciation test reached an acceptable alpha level, indicating that the items consistently measure students' pronunciation mastery. Therefore, the instrument is both valid and reliable for use in a quasi-experimental study.

3.8 Data Collection Technique

Data collected several complementary techniques to ensure validity and reliability. First, content validity is established through expert judgment and Aiken's V analysis. Next, the instrument administered to 30 students in a pilot test to refine it and get preliminary estimates of reliability.

The main data consisted of pre-test and post-test scores from pronunciation production and listening discrimination tasks; all performances by audio-recorded and evaluated independently by two trained raters. Treatment fidelity will also be monitored through observation notes and attendance logs. Inter-rater reliability (ICC) and internal consistency (Cronbach's alpha) calculated before the hypothesis is tested.

1. Pre-Test

The pre-test to identify students' initial understanding of the material and their mastery of pronunciation before the treatment begins. The result of the orally pre-test compared with the post-test to determine the improvement after the

implementation of minimal pairs. The pre-test has given to both the experimental and control classes.

The tested vocabulary speak, where students must speak the vocabularies and recorded. The time allocation for the pre-test is 45 minutes.

2. Treatment

The treatment is carried out after the pre-test and only gave to the experimental class. The treatment conducted twice in classroom meetings.

Table 3. 6 First Meeting

No	Aspect	Teacher's Activity	Student Activity
1	Pre-Activity	-The teacher asked one of the students to lead a prayer	-The students prayed together
		-The teacher introduced the topic would be discussed to the students	- The student followed the teacher's instruction.
		- The teacher introduced the topic "How to Pronounce" to the students. He brainstorms by giving the students some questions related to the topic being discussed.	- The student answered the question that is given by the teacher.

		- The teacher explained Minimal pairs vocabulary.	- The students payed attention to teacher's explanation.
		- The teacher asked to all the student to See any vocabularies on the board.	- The student followed the teacher's instruction.
		- The teacher discussed with the student about pronunciation.	- The student asked the question that is difficult to understand by the student
2	Whilst Activity	-The teacher explained the definition of the minimal pairs and the example of pronounce.	- The students payed attention to teacher's explanation.
		-The teacher asked to student for speak the vocabularies.	

		- The students were asked by the teacher about the material had been discus and explained by the teacher to check their understanding about pronounce the vocabulary.	
3	Post-Activity	- The teacher invited the students conclude the materials they have learnt.	- The students made some conclusion orally about the materials they have learnt and understood.
		- The teacher gave the students feedback, reward and compliment of their work.	- The students responded to the teacher

The table below illustrate the second meeting in experimental class

Table 3. 7 Second Meeting

No	Aspect	Teacher's Activity	Student Activity

1	Pre-Activity	-The teacher asked one of the students to lead a prayer	-The students prayed together
		The teacher introduced the topic will be discussed to the students	The student followed the teacher's instruction
		The teacher recalled the student's understanding about pronounce vocabularies by each vocabularies before	The student answered the question that is given by teacher
2.		- The teacher explained with audio and video Minimal pairs in vocabulary.	- The students payed attention to teacher's explanation.
		- The teacher asked to all the student to See and hear any vocabularies on the screenboard.	- The student followed the teacher's instruction.
		- The teacher discussed	- The student asked

		with the student about how to pronounce each vocabulary.	the question that is difficult to understand by the student
3	Post- Activity	The students were asked by the teacher about material had been discuss and explain by teacher.	The students answered the questions orally
		The teacher invited the students conclude the materials they have learnt.	
		The teacher gave the students feedback, reward and compliment of their work	

3. Post-Test

The post-test is used to measure the extent to which students understand and master the material after the treatment. The post-test orally showed whether there is an improvement in pronunciation after learning with minimal pairs in the eighth grade of SMPN 4 Kota Mojokerto.

The post-testes same as the pre-test, where students must speak the vocabularies and recorded. The time allocation for the post-test is 45 minutes.

3.9 Data Analysis

Data analysis is the activity of studying and classifying data systematically from the results of data collection carried out by the researcher so that the interpretation and verification of data from a phenomenon under study has academic, scientific and validity values that meet the requirements so that there is no doubt about the truth. This study used statistical methods to obtain significant differences in scores in the effectiveness and use of the Minimal Pairs for mastering the pronunciation. There are 3 tests in this study those are:

a. Normality Test

A distribution of normal data used a normality test. Because the assumption of normal distribution is require for parametric test, this tested becomes an essential procedure in parametric statistical analysis. In this study, the normality test used to determine whether the data distributions of the experimental and control classes are normal. The researcher used the Kolmogorov–Smirnov test to examine the normality of the data, and used IBM SPSS Statistics 25 to conduct the analysis. If the significance value is greater than 0.05 ($p > 0.05$), the data considered normally distributed. The hypotheses for the normality test are formulated as follows:

- a. H_0 : The data is normally distribute.
- b. H_a : The data is not normally distribute.

The normality test hypothesis indicates that the data is normally

distributed if H_0 is accept; otherwise, the data is not normally distribute if H_a is accepted.

H_0 is approve if the significance value is more than 0.05 ($\alpha=5\%$);

H_0 is reject if the significance value is less than 0.05 ($\alpha=5\%$).

b. Homogeneity Test

A homogeneity test is a method for determining the differences between two or more populations. Population features might differ from one population to the next. In this study, the researcher employs the Homogeneity of Variance Tests in SPSS 25 to assess population homogeneity. The purpose of this test is to determine if the population variance of the experimental and control classes is the same or different.

c. Hypothesis Test

A hypothesis test is a statistical method used to determine whether a claim or assumption about a population parameter is true or false. It involves two hypotheses: the null hypothesis (H_0) and the alternative hypothesis (H_a). The researcher analyzes and calculate the data using the t-test (significance level of 0.05) on the SPSS 25 system. Hypothesis testing in this study is as follows:

a. Hypothesis :

H_0 : Minimal Pairs to pronunciation mastery is **not effective** in terms of the achievement of improve students' understanding.

H_1 : Minimal Pairs to pronunciation mastery is **effective** in terms of the achievement of improve students' understanding.

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents the results and discussion related to the effectiveness of using Minimal Pairs in the learning process. The data analyzed are obtained research result from pre-test and post-test which aim to evaluate the level of student achievement before and after being given treatment through Minimal Pairs learning methods. Next is data presentation and data analysis.

4.1 Research Finding

In this subchapter, the researcher displays the numerical and phonem results of the data statistics were studied. The data came from the pre-test and post-test delivered to both the experimental and control groups. The researcher selected class VIII H as the experimental class, which had 31 students, and class VIII D as control class, which had 30 students.

In the experimental class, students were treated by minimal pairs as a learning strategy to grasp the pronunciation. In the control group, students learned the pronunciation by teacher. So, the findings of this study reveal whether or not the minimal pairs was beneficial in improving students. The test result for the experimental and control class are shown in the table below. Each of the tables has two sections: pre-test and post-test.

4.1.1 Data of Experimental Class

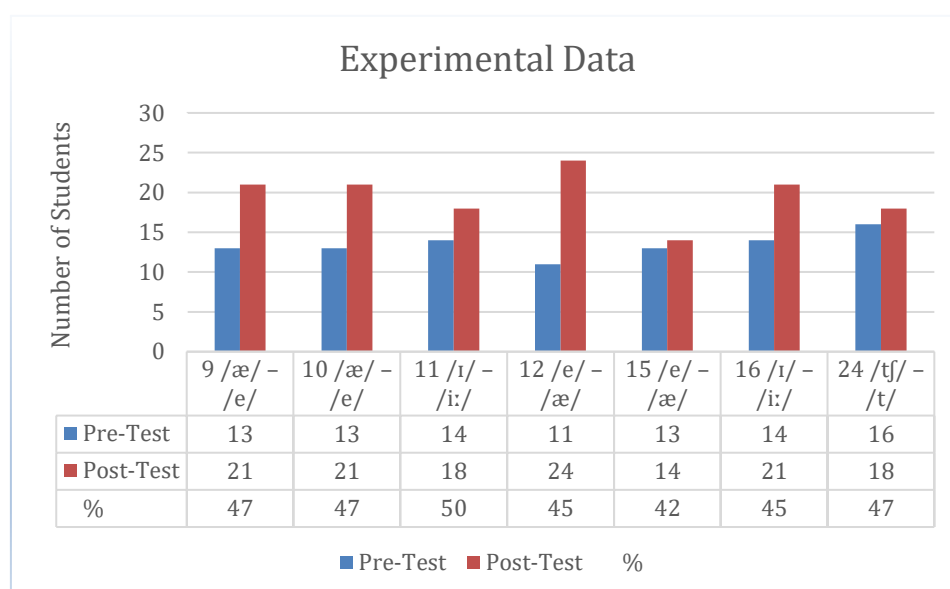
Table 4. 1 Students Experimental Class Scores

No	Name of Student	Score of Pre-test	Score of Post-test
1.	AKD	70	72
2.	AA	92	96
3.	AR	44	77
4.	BA	36	63
5.	DRL	92	100
6.	DLF	72	82
7.	DCY	48	76
8.	FBN	64	70
9.	HFZ	64	70
10.	IST	80	92
11.	JSC	92	100
12.	JNA	96	100
13.	JL	96	100
14.	BGS	24	36
15.	NDR	60	72

16.	EDG	84	100
17.	GLG	44	56
18.	NJW	88	100
19.	NRD	40	44
20.	PND	88	84
21.	QNS	92	96
22.	RCL	72	84
23.	RF	20	28
24.	RFF	52	80
25.	RNLD	20	56
26.	RVLN	92	92
27.	SFR	88	96
28.	SNR	72	84
29.	THR	64	72
30.	VRG	36	64
Total		1982	2342
Average		66,1	78,2

From Table 4.1, it can be noted that the highest pretest grade of students in the experimental group is 96, the lowest is 20, while the average score is 66.1. However, the highest post-test grade was 100, the lowest being 28, and the average score is 78.1. The table provides information about how the scores of students increased from pretest to posttest. As a matter of fact, the scores of pretest and posttest show an increase of 80 with an average grade of 78.2. The following is a detailed explanation of the student's grades above:

Table 4. 2 Phonem Difficulties Experimental Class



The result of the phonemic difficulties is illustrated in above. It can be observed that the participants experienced varying levels of difficulty in pronouncing several English phoneme contrasts.

First one, the /ɪ/–/i:/ contrast in question 11 appears to be the most difficult sound contrast, as 50% of the participants were unable to pronounce it correctly, as indicated by the percentage line. This shows that half of the learners had problems distinguishing between short and long vowel sounds. Similarly, the /e/–/æ/ contrast in questions 9,10 shows a high level of difficulty, with 47% of the participants failing to pronounce the

sounds accurately. In contrast, the /e/–/æ/ contrast in question 15 and 12 was the least difficult among the tested items, with only 42% and 45% of the participants unable to pronounce the sounds correctly. This suggests that students were relatively not familiar with this vowel contrast. Sound /ɪ/–/i:/ contrast in question 16 also shows a moderate level of difficulty, with 45% of the participants experiencing pronunciation problems. Lastly, the /tʃ/–/t/ contrast in question 24 presents a noticeable difficulty, as 47% of the participants were unable to articulate the sounds correctly. The figure indicates that although students faced pronunciation challenges in the pre-test, the post-test results show improvement, as reflected by the decreasing percentage of participants who were unable to pronounce the target sounds.

Table 4. 3 Pre-Test Experimental Class Scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	2	6.7	6.7	6.7
	24	1	3.3	3.3	10.0
	36	2	6.7	6.7	16.7
	40	1	3.3	3.3	20.0
	44	2	6.7	6.7	26.7
	48	1	3.3	3.3	30.0
	52	1	3.3	3.3	33.3
	60	1	3.3	3.3	36.7
	64	3	10.0	10.0	46.7
	68	1	3.3	3.3	50.0
	72	3	10.0	10.0	60.0
	80	1	3.3	3.3	63.3
	84	1	3.3	3.3	66.7
	88	3	10.0	10.0	76.7
	92	5	16.7	16.7	93.3
	96	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

From Table 4.3, it can be seen that the pre-test scores of the students were distributed from 20 to 96. The lowest score was 20, which was obtained by 2 students (6.7%), while the highest score was 96, also achieved by 2 students (6.7%).

The distribution of scores shows that 5 students (16.7%) obtained a score of 92, which represents the highest frequency in the table. In addition, 3 students (10.0%) achieved scores of 64, 72, and 88, indicating that these scores were relatively common among the participants. Furthermore, 2 students (6.7%) obtained scores of 36, 44, and 96.

Meanwhile, several scores were obtained by only 1 student (3.3%), including 24, 40, 48, 52, 60, 68, 80, and 84. Overall, the table indicates that the students' pre-test scores were spread across a wide range, with a higher concentration of scores in the upper range, particularly between 64 and 92.

Table 4. 4 Post-Test Experimental Class Scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	28	1	3.3	3.3	3.3
	36	1	3.3	3.3	6.7
	44	1	3.3	3.3	10.0
	56	2	6.7	6.7	16.7
	63	1	3.3	3.3	20.0
	64	1	3.3	3.3	23.3
	70	2	6.7	6.7	30.0
	72	3	10.0	10.0	40.0
	76	1	3.3	3.3	43.3
	77	1	3.3	3.3	46.7
	80	1	3.3	3.3	50.0
	82	1	3.3	3.3	53.3
	84	3	10.0	10.0	63.3
	92	2	6.7	6.7	70.0
	96	3	10.0	10.0	80.0
	100	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Based on the table above, the post-test scores of the experimental class were more varied than the pre-test scores, and they also showed a clear improvement. The score range increased from the pre-test to the post-test, indicating better student performance. In the post-test, the scores ranged from 28 to 100. The lowest score in

the post-test was 28, which was obtained by 1 student (3.3%), while the highest score was 100, achieved by 6 students (20.0%). This shows that a considerable number of students were able to reach the maximum score after the treatment.

Furthermore, the distribution of post-test scores shows that 3 students (10.0%) obtained scores of 72, 84, and 96. In addition, 2 students (6.7%) achieved scores of 56, 70, and 92. Several scores were obtained by only 1 student (3.3%), including 36, 44, 63, 64, 76, 77, 80, and 82.

The table indicates that the post-test results not only demonstrate a wider distribution of scores but also reflect a significant improvement in students' achievement after the instructional treatment.

4.1.2 Data of Control Class

Table 4. 5 Students Control Class Scores

No	Name of Student	Score of Pre-test	Score of Post-test
1.	ALZ	60	56
2.	AMR	56	72
3.	ARY	88	92
4.	BM	84	88
5.	CVN	60	76
6.	CLR	44	56
7.	DMS	32	48

8.	DV	36	56
9.	ECH	32	60
10.	FRZ	16	32
11.	FRS	44	68
12.	HNF	36	44
13.	KYL	48	52
14.	KZO	68	96
15.	RZK	32	44
16.	RZQ	56	76
17.	MRW	44	88
18.	NHD	56	68
19.	NJW	56	84
20.	NFL	20	28
21.	NT	72	76
22.	NRL	40	80
23.	RDT	40	48
24.	RF	24	76

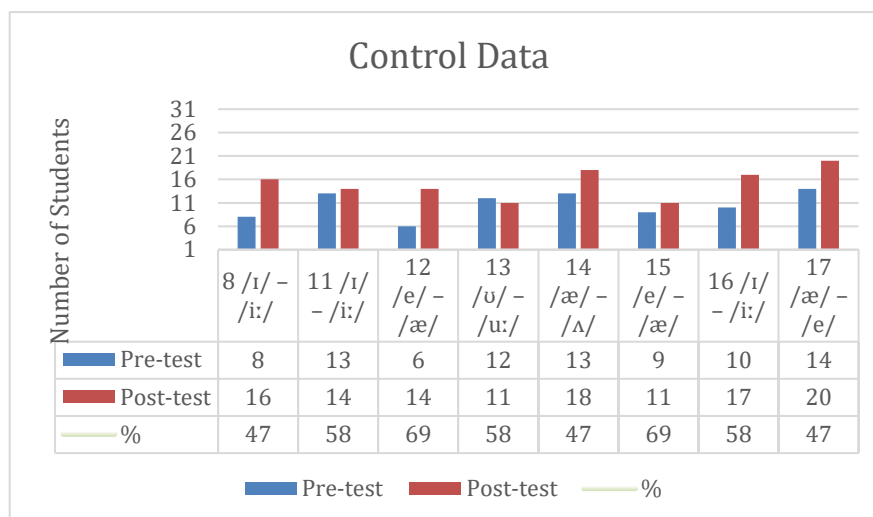
25.	UBD	28	60
26.	AZK	52	68
27.	LSM	32	64
28.	ZLFH	40	76
29.	ALF	44	96
30.	ASY	56	64
31.	WHY	88	92
Total		1484	2084
Average		47,9	67,2

The table above shows the scores of the pre-test and post-test in the control class. The highest score of the pre-tests in the control class was 88, while the lowest score was 16. The total score for the pre-tests was 1484, with an average of 47.9.

Meanwhile, the highest score of the post-tests in the control class was 96, and the lowest score was 28. The total score of the post-tests reached 2084, with an average of 67.2.

The results from the control class indicate an improvement in scores from the pre-test range (16–88) to the post-test range (28–96). The difference between the two averages was 19.3, and the total score increased by 600 points. Although there is a visible increase in the mean score, further statistical testing is required to determine the significance of this improvement. The following is a detailed explanation of the student's grades above:

Table 4. 6 Phonem Difficulties in Control Class



The result of the phonemic difficulties for the control class is illustrated in the table above. It can be observed that the participants experienced noticeable difficulties in pronouncing several English vowel contrasts. The percentage (%) line represents the proportion of participants who were unable to pronounce the target sounds correctly.

Firstly, the vowel contrast /ɪ/–/i:/ in questions 8, 11, and 16 appears to be one of the most difficult phonemes for the participants. In particular, questions 11 and 16 show a high percentage of difficulty, with 58% of the participants unable to pronounce the sounds correctly. This indicates that many learners had problems distinguishing between short and long vowel sounds.

Secondly, the vowel contrast /e/–/æ/ in questions 12, 14, 15, and 17 also shows considerable difficulty. The highest level of difficulty for this contrast can be seen in questions 12 and 15, where 69% of the participants were unable to pronounce the sounds accurately. In contrast, questions 14 and 17 show a lower percentage of difficulty, with only 47% of the participants experiencing pronunciation problems.

Lastly, the vowel contrast /ʊ/–/u:/ in question 13 presents a moderate level of difficulty. Approximately 58% of the participants were unable to pronounce this sound contrast correctly, indicating that more than half of the learners struggled to distinguish between these two vowel sounds.

Overall, the table shows that the control class experienced persistent pronunciation difficulties across several phoneme contrasts. Unlike the experimental class, the percentage of students who were unable to pronounce the target sounds remains relatively high, suggesting limited improvement in pronunciation accuracy.

Table 4. 7 Pre-Test Control Class Scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16.00	1	3.2	3.2	3.2
	20.00	1	3.2	3.2	6.5
	24.00	1	3.2	3.2	9.7
	28.00	1	3.2	3.2	12.9
	32.00	4	12.9	12.9	25.8
	36.00	2	6.5	6.5	32.3
	40.00	3	9.7	9.7	41.9
	44.00	4	12.9	12.9	54.8
	48.00	1	3.2	3.2	58.1
	52.00	1	3.2	3.2	61.3
	56.00	5	16.1	16.1	77.4
	60.00	2	6.5	6.5	83.9
	68.00	1	3.2	3.2	87.1
	72.00	1	3.2	3.2	90.3
	84.00	1	3.2	3.2	93.5
	88.00	2	6.5	6.5	100.0
	Total	31	100.0	100.0	

From Table 4.7, it can be seen that the pre-test scores in the control class ranged from 16.00 to 88.00. There was 1 student (3.2%) who obtained the lowest score of 16.00, and 2 students (6.5%) who achieved the highest score of 88.00.

The results of the pre-test also indicate the following distribution: 1 student (3.2%) scored 20.00, 1 student (3.2%) scored 24.00, and 1 student (3.2%) scored 28.00. Furthermore, there were 4 students (12.9%) who obtained a score of 32.00, 2 students (6.5%) who got 36.00, and 3 students (9.7%) who achieved 40.00. Additionally, 4 students (12.9%) received a score of 44.00, followed by 1 student (3.2%) for each score of 48.00 and 52.00.

The table also shows that the most frequent score was 56.00, obtained by 5 students (16.1%). Finally, 2 students (6.5%) scored 60.00, while 1 student (3.2%) each achieved scores of 68.00, 72.00, and 84.00. These figures reflect the initial competency levels of the students in the control class before any treatment was administered. The next is Post test score from the control class:

Table 4. 8 Post-Test Control Class Scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	28.00	1	3.2	3.2	3.2
	32.00	1	3.2	3.2	6.5
	44.00	2	6.5	6.5	12.9
	48.00	2	6.5	6.5	19.4
	52.00	1	3.2	3.2	22.6
	56.00	3	9.7	9.7	32.3
	60.00	2	6.5	6.5	38.7
	64.00	2	6.5	6.5	45.2
	68.00	3	9.7	9.7	54.8
	72.00	1	3.2	3.2	58.1
	76.00	5	16.1	16.1	74.2
	80.00	1	3.2	3.2	77.4
	84.00	1	3.2	3.2	80.6
	88.00	2	6.5	6.5	87.1
	92.00	2	6.5	6.5	93.5
	96.00	2	6.5	6.5	100.0
Total		31	100.0	100.0	

Based on the table above, the post-test scores of the control class demonstrate a broader distribution and an upward shift compared to the pre-test results. The

scores in the post-test ranged from 28.00 to 96.00. The lowest score was 28.00, obtained by 1 student (3.2%), while the highest score was 96.00, achieved by 2 students (6.5%).

Furthermore, the distribution of the post-test scores reveals that the most frequent score was 76.00, which was obtained by 5 students (16.1%). This is followed by scores of 56.00 and 68.00, each achieved by 3 students (9.7%). Additionally, several scores were obtained by 2 students (6.5%) each, specifically 44.00, 48.00, 60.00, 64.00, 88.00, and 92.00.

The remaining scores, including 32.00, 52.00, 72.00, 80.00, and 84.00, were each earned by only 1 student (3.2%). Overall, the table indicates a positive trend in student performance, with a significant portion of the class moving toward the higher end of the scoring spectrum after the instructional period.

4.2 Analysis of The Data

4.2.1 The Normality Test

In this chapter the researcher discussed about the normality test. The researcher used Kolmogorov-Smirnov as a normality test with hypothesis:

H0: $FN(x) = F0(x)$ (data is normally distributed)

H1: $FN(x) \neq F0(x)$ (data is not normally distributed)

In this test the researcher used SPSS 25 to calculate the data of pre-test and the post-test of two classes. The table below showed the result from SPSS 25:

Table 4. 9 Result of Normality Test

		Experime ntal_Pre	Experiment al_Post	Control_P re	Control_Po st
N		30	30	31	31
Normal Parameters	Mean	66.67	78.27	46.53	66.4
	Std.Deviati on	24.413	19.867	17.403	17907
Most Extreme Differences	Absolute	0.149	0.135	0.125	0,104
	positive	0.149	0.135	0.125	0,104
	negative	-103	-0.98	-0.98	-104
Test Statistic		0,149	0,135	0,125	0,104
Asymp.Sig. (2-tailed)		0,088	0,173	0,200	0,200

- Test distribution is Normal.
- Calculated from data
- Lilliefors Significance Correction.
- This is a lower bound of the true significance.

From the data above, the researcher concluded as follows:

Table 4. 10 Conclusion Normality Test

CLASS	D count	p- value	α	CONCLUSION
VIII H Pre-Test	0,149	0,088	0,05	Normal
VIII H Post-Test	0,135	0,173	0,05	Normal
VIII B Pre-Test	0,125	0,200	0,05	Normal
VIII B Post-Test	0,104	0,200	0,05	Normal

The table above shows that the p-value of pre-test VIII H (experiment class) was 0,88, the post-test score of VIIIH 0,173, the pre-test score of VIII B (control class) was 0,200, and the post-test score of VIIIB was 0,200 which were

those scores were higher than $\alpha = 0.05$, so it means H_0 was accepted and all the test normally distributed.

4.2.2 Homogeneity Test

In this chapter, the researcher calculated the homogeneity test by using SPSS 25. Data homogeneity testing uses the Levene test for data collected during the Pre-Test and Post-Test in both classes VIII H and VIII B. The table below shows the result on SPSS 25:

Table 4. 11 Pre-Test of Experimental and Control Class

Lavene Statistic	df1	df2	Sig.
3.655	1	59	0.061

Table 4. 12 Post-Test of Experimental and Control Class

Lavene Statistic	df1	df2	Sig.
0.172	1	59	0.681

Table 4.11 reveals that the significant value of the data gathered during the Pre-Test is $0.061 > 0.05$ (significance level), indicating that the Pre-Test value data for classes VIII H and VIII B have the same variance (homogeneous). Similarly, in Table 4.12, data obtained during the Post-Test has a significance value of $0.681 > 0.05$ (significant threshold). Based on this, it can also be argued that the Post-Test score data for classes VIII H and VIII B have the same variance (homogeneous).

4.2.3 Comparison of statistical data Post-Test of Experimental Class and Control Class

The researcher began by comparing the post-test results of students from two courses (the experimental and control classes), which included the average, lowest,

and greatest scores in minimal pairs of pronunciation mastery. Following that, the researcher reviewed the score of each class from the student's post-test score to determine if the student's score was going lower, the same, different, or greater. The following table depicts the differing results of the experimental and control classes using statistical data:

Table 4. 13 Descriptive statistic of Post-Test Control and Experiment Class

		Experimental Post	Control Post
N	Valid	30	31
	Missing	0	0
Mean		78.27	67.23
Std. Error of Mean		3.675	3.268
Median		84.00	68.00
Mode		100	76
Std. Deviation		20.130	18.197
Minimum		28	28
Maximum		100	96
Sum		2348	2084

Based on the descriptive statistics table provided, there are notable differences between the post-test results of the experimental class and the control class. The data was collected to evaluate the students' pronunciation knowledge after the experimental group was treated with the Minimal Pairs program, while the control group followed the traditional lecture method.

In the experimental class, the post-test results show a mean score of 78.27 with a standard error of 3.675. The median score was 84.00, while the mode reached a perfect score of 100. The standard deviation for this group was 20.130. Furthermore, the scores ranged from a minimum of 28 to a maximum of 100, with a total sum of 2348.

Conversely, the control class yielded different results. The data reveals that the mean score was lower at 67.23 with a standard error of 3.268. The median score for this group was 68.00, and the mode was 76. The scores in the control class spread from a minimum of 28 to a maximum of 96, with a standard deviation of 18.197 and a total sum of 2084.

Table 4. 14 Group statistic of Control and Experiment Class

	Class	N	Mean	Std. Deviation	Std. Error Mean
Pre_Test	Experimental	30	66.0000	24.40463	4.45566
	Control	31	47.8710	18.66144	3.35169
Post_Test	Experimental	30	78.2667	20.13049	3.67531
	Control	31	67.2258	18.19654	3.26819

Table 4.14 provides the group statistics for both the experimental and control classes, comparing their performance in the pre-test and post-test phases. According to the table, there were 30 students (N) in the experimental class and 31 students in the control class. In the pre-test, the experimental class obtained a mean score of 66.00, while the control class achieved 47.87. The standard deviation for the experimental group was 24.40, whereas the control group was 18.66. Furthermore, the standard error of the mean for the experimental class was 4.45, compared to 3.35 for the control group.

Regarding the post-test results, the experimental class showed a higher mean score of 78.26, while the control class reached 67.22. The standard deviation for the experimental class in this stage was 20.13, and for the control class, it was 18.19. Additionally, the standard error of the mean was 3.67 for the experimental group and 3.26 for the control group. The data demonstrates that the students in the experimental class achieved higher scores than those in the control group in both

tests. This indicates that the students in the experimental class performed better, particularly after receiving the instructional treatment.

4.2.4 Hypothesis Test

The hypothesis testing conducted in this study aims to determine whether minimal pairs are effective in helping 8th-grade students at SMPN 4 Mojokerto City master the pronunciation of a word. The hypotheses are as follows:

- If the calculated t-value is greater than or equal to the t table = $t((\alpha, t-1))$ value at the significance level of $\alpha=0.05$), then null hypothesis H_0 is rejected (minimal pairs are effective in helping 8th-grade students at SMPN 4 Mojokerto City master word pronunciation).

- If the calculated t-value is less than the t-table value = $t((\alpha, t-1))$ value at the significance level ($\alpha = 0.05$), then hypothesis 0 is accepted (Minimal Pairs are not effective in helping 8th-grade students at SMPN 4 Mojokerto City master word pronunciation).

Hypothesis testing was conducted using the t-test on the post-test data from Class VIII H, the treatment class, and Class VIII B, the control class, as presented in Table 24 below:

Table 4. 15 The Result of Analyzing Independent Sample T-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post_ Test	Equal variances assumed	0.217	0.643	2.249	59	0.028	11.04086	4.90998	1.21601	20.86571
	Equal variances not assumed			2.245	57.962	0.029	11.04086	4.91823	1.19581	20.88591

Based on Table 4.15, the results of the Independent Sample T-test show that the significant value (Sig. 2-tailed) for the post-test scores between the experimental and control classes is 0.028. Since this value is lower than the significance level of 0.05 ($0.028 < 0.05$), the null hypothesis (H_0) is rejected.

This demonstrates that there is a significant difference between the average post-test results of the experimental class and the control class. The t-count value is recorded at 2.249 with a degree of freedom (df) of 59. Furthermore, the mean difference between the two groups is 11.04086, indicating that the experimental class achieved a higher average score than the control group. The hypothesis testing confirms that the use of the Minimal pairs was effective in improving the students' pronunciation mastery. While the experimental class showed a significant improvement and outperformed the control group, the results suggest that the instructional treatment provided a substantial advantage in the students' learning outcomes compared to the conventional teaching method used in the control class.

4.3 Discussion

The findings of this study indicate that the use of minimal pairs was effective in improving students' pronunciation mastery in the experimental class. This result supports segmental pronunciation theory, which emphasizes that individual speech sounds, particularly vowels, can be explicitly taught and improved through focused practice. The descriptive results show that students who received instruction through minimal pairs demonstrated a greater improvement from pre-test to post-test compared to those in the control class. The descriptive data from the pre-test showed that both classes started with relatively low accuracy in segmental features, particularly when pronouncing similar vowel contrasts. This phenomenon can be thoroughly explained by Selinker's (1972) Interlanguage Theory. As teenage EFL learners, the eighth-grade students at SMPN 4 Kota Mojokerto do not possess a fixed or perfect target language system; instead, they operate within a psychologically distinct linguistic system called an *interlanguage*.

A major cognitive process shaping this interlanguage is *negative transfer*, or L1 Interference (Cross-Linguistic Influence). In the native Indonesian phonological framework, vowel length is non-phonemic; the duration of a vowel does not change the semantic meaning of a word. Consequently, when confronted with English contrasts like /ɪ/ (lax, short) and /i:/ (tense, long), students experienced a high difficulty rate (50% on question 11). Following Selinker's framework, the learners instinctively relied on their L1 cognitive structures and substituted these complex target phonetic variations with the closest available single category in Indonesian, which is the stable short vowel [i]. Without explicit training, their interlanguage

becomes fossilized, causing them to read both 'ship' and 'sheep' with identical vowel duration and posture.

This improvement suggests that explicit exposure to contrasting phonemes enhanced students' awareness of English vowel distinctions, especially sounds that are not present in their first language. From the perspective of phonemic contrast theory, minimal pairs function as an effective instructional technique because they draw learners' attention to meaning-distinguishing sound differences, which is essential for accurate pronunciation development. In contrast, although the control class also showed progress, the increase was less substantial, indicating that conventional instruction alone was less effective in addressing pronunciation difficulties at the phoneme level.

Further analysis of the phoneme-level data reveals that certain vowel contrasts remained challenging for students, particularly the /ɪ/–/i:/ and /e/–/æ/ contrasts. The post-test results indicate that the experimental group achieved a noticeably higher final mean score (78.27) compared to the control group (67.23). The root of this improvement lies in the structural breakdown of sound contrasts. According to Peter Ladefoged (2001), speech sounds are defined by specific Articulatory Features such as the place of articulation, manner of articulation, and specific acoustic lengths.

Ladefoged emphasizes that natural languages rely on a delicate balance of Phonological Contrasts to maintain distinct semantic definitions. When students confuse the front vowel /e/ with the open vowel /æ/ (which had a 45% difficulty rate in question 12), they fail to adjust their precise articulatory posture—specifically, the degree of jaw opening and tongue lowering required for /æ/. By utilizing Minimal Pairs (e.g., *bed* vs *bad*, *sit* vs *seat*), the treatment directly targeted

these physical articulatory features. Closer proximity of contrasting words forced students to notice that shifting a single phonetic attribute completely changes the functional load of the word. The minimal pairs technique effectively prevented the "collapsing" of phonemic contrasts, ensuring that students did not just produce random sounds, but systematically maintained the structural sound boundaries required for intelligible communication.

A high percentage of incorrect pronunciation in the pre-test suggests that students initially struggled to distinguish between short and long vowels as well as similar front vowels. These findings align with previous studies by Donal (2016) and Amalia et al. (2023), which reported similar difficulties due to substitution, distortion, vowel insertion between consonants, and problems with front open vowels. From a theoretical standpoint, these difficulties can be explained through interlanguage theory, proposed by Larry Selinker, which posits that learners develop a transitional linguistic system influenced by both their first language and the target language. Since Indonesian does not employ vowel length as a distinctive phonological feature, first language interference contributed to students' pronunciation errors. However, the reduction in error percentages in the post-test indicates that minimal pairs practice facilitated the restructuring of learners' interlanguage system by increasing phonemic awareness and improving articulation accuracy.

In terms of Second Language Acquisition (SLA) theory, the improvement observed in the experimental class can also be attributed to increased exposure and meaningful practice. Repeated exposure to contrasting vowel sounds provided learners with comprehensible phonological input, which is crucial for pronunciation

development. As suggested by Stephen Krashen, sustained exposure to understandable input enables learners to internalize target language features. In this study, minimal pairs offered structured input that allowed students to notice subtle sound differences and gradually incorporate them into their spoken production.

Before conducting inferential statistical analysis, the assumptions of normality and homogeneity were examined to ensure the validity of the findings. The results of the Kolmogorov–Smirnov test indicate that the pre-test and post-test scores of both the experimental and control classes were normally distributed, as all significance values exceeded 0.05. Additionally, Levene’s test confirmed that the variances of both groups were homogeneous. These results demonstrate that the data met the statistical assumptions required for parametric testing, thereby strengthening the reliability of the subsequent independent samples t-test.

The hypothesis testing using an independent samples t-test reveals a statistically significant difference between the post-test scores of the experimental and control classes. The obtained significance value was lower than the predetermined alpha level of 0.05, leading to the rejection of the null hypothesis. This finding confirms that students who were taught using minimal pairs achieved significantly better pronunciation outcomes than those who received conventional instruction. The mean difference between the two groups further reinforces the pedagogical effectiveness of minimal pairs in teaching pronunciation.

Overall, the discussion of the research findings and statistical analyses confirms that minimal pairs make a meaningful contribution to improving students’ pronunciation mastery. By focusing on phonemic contrasts, minimal pairs help learners notice subtle differences in English sounds that are often difficult for EFL

learners. This result is consistent with the findings of Kholid and Haryanto P. (2017), who reported statistically significant improvements in pronunciation through minimal pairs instruction. Furthermore, the positive progress observed in this study supports previous empirical research conducted by Pourhosein Gilakjani (2016) and Hamzah and Bawodood (2019). Therefore, the findings of this study provide strong theoretical and empirical support for the use of minimal pairs as an effective pedagogical strategy in teaching English pronunciation at the junior high school level.

CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on the findings of this study, it can be concluded that the teaching treatment had a positive impact on students' English pronunciation skills. The effectiveness of this method is clearly demonstrated by the significant rise in the experimental group's average score, which improved from 66.1 in the pre-test to 78.1 in the post-test. Furthermore, the independent sample t-test results, showing a significance value of 0.028 ($p < 0.05$), confirm that this technique provides a substantial advantage over conventional lecturing methods used in the control class. Beyond numerical gains, the technique successfully fostered better phonemic awareness, allowing students to accurately distinguish and produce challenging English vowel contrasts, such as /ɪ/–/i:/ and /e/–/æ/, which are frequently influenced by their mother tongue. The results show that many students experienced difficulties in pronouncing these sounds correctly before the treatment, as indicated by the high percentage of incorrect pronunciation in the pre-test.. Ultimately, explicit practice with these sound contrasts not only sharpened the students' articulatory accuracy but also boosted their overall confidence and clarity in English communication.

5.2 Suggestions

Reflecting on the results of this research, several suggestions are offered to teachers, students, and future researchers to further enhance the quality of English pronunciation instruction:

For English Teachers

- ❖ **Integrate Minimal Pairs Regularly:** Teachers should consider incorporating minimal pairs as a routine part of English lessons rather than an isolated activity. Short, consistent drills (15–20 minutes) can significantly sharpen students' auditory discrimination.

- ❖ **Utilize Digital Media:** As seen in the treatment sessions, using audio and video aids helps students visualize the placement of articulatory organs, making it easier to produce sounds that do not exist in Bahasa Indonesia.

For Students

- ❖ **Consistent Practice:** Students are encouraged to practice pronunciation independently using minimal pair lists and audio recordings to build muscle memory in their speech organs.

- ❖ **Active Participation:** Students should not fear making mistakes during pronunciation drills, as identifying the contrast between sounds is the first step toward clear communication.

For Future Researchers

- ❖ **Extended Duration:** Future studies could implement a longer intervention period to observe if the improvements in pronunciation are sustained over a longer timeframe.

- ❖ **Broader Scope:** Subsequent research might explore the impact of minimal pairs on suprasegmental features (stress, rhythm, and intonation) or test the technique across different grade levels and geographic regions to generalize the findings.

REFERENCES

- abril, G. D. P. (2019). Analysis Of The Usage Of Minimal Pairs Technique In Teaching Pronunciation To Students At Eighth Year Of Educacion General Basica “A” In The Unidad Educativa “Pedro Vicente Maldonado” In The City Of Riobamba, Chimborazo Province, During The Academic Year 2018-2019.
[Http://Dspace.Unach.Edu.Ec/Handle/51000/6378](http://Dspace.Unach.Edu.Ec/Handle/51000/6378)
- Amalia, F. N., Rambe, S. S., & Lubis, Y. (2023). Literature Review On English Consonant Pronunciation Problems Encountered By Indonesian Students. *Khatulistiwa: Jurnal Pendidikan Dan Sosial Humaniora*, 3(3), 175–184.
[Https://Doi.Org/10.55606/Khatulistiwa.V3i3.1922](https://doi.org/10.55606/Khatulistiwa.V3i3.1922)
- Anjani, R. P. W., Wahyuni, H. I., Nugraheni, M. P. P., & Bram, B. (2023). Problematic English Consonant Sounds For Indonesian Efl Learners. *Journey: Journal Of English Language And Pedagogy*, 6(3), 592–604.
[Https://Doi.Org/10.33503/Journey.V6i3.3493](https://doi.org/10.33503/Journey.V6i3.3493)
- Aprianoto, A., Ariani, S., Wahyudiantari, N. W. P., Hidayatullah, H., & Sumarsono, D. (2024). Upskilling Bahasa Inggris Melalui Tongue Twister Di Mts Negeri 3 Lombok Barat. *Jurnal Abdimas Bsi: Jurnal Pengabdian Kepada Masyarakat*, 7(1), 197–207. [Https://Doi.Org/10.31294/Jabdimas.V7i1.14510](https://doi.org/10.31294/Jabdimas.V7i1.14510)
- Ari Wibowo, T., & Nasrullah, N. (2024). The Effect Of Pronunciation Training On English Speaking Skill Among English Non-Native Speakers. *Exposure : Jurnal Pendidikan Bahasa Inggris*, 13(1), 92–100.
[Https://Doi.Org/10.26618/Exposure.V13i1.10740](https://doi.org/10.26618/Exposure.V13i1.10740)
- Aronson, J. K. (2024). When I Use A Word. . . Diphthongs And Digraphs. *Bmj*, Q228. [Https://Doi.Org/10.1136/Bmj.Q228](https://doi.org/10.1136/Bmj.Q228)
- Asmaul Husna, Siti Sholikhah, & Yani Lubis. (2023). An Analysis Of Minimal Pairs Of Consonant Sounds In English. *Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, Dan Sosial Humaniora*, 1(3), 92–97.
[Https://Doi.Org/10.59024/Atmosfer.V1i3.208](https://doi.org/10.59024/Atmosfer.V1i3.208)
- Azura Fazira, Dinda Gustiana, & Yani Lubis. (2023). English Vowels. *Jurnal Pendidikan Dan Sastra Inggris*, 3(2), 111–118.
[Https://Doi.Org/10.55606/Jupensi.V3i2.2007](https://doi.org/10.55606/Jupensi.V3i2.2007)

- Baso, Y. S. (2022). Reduce The Foreign Accent Of Indonesian Arabic Learners Through A Minimal Pairs Strategy. *Arabiyatuna : Jurnal Bahasa Arab*, 6(1), 193. <https://doi.org/10.29240/Jba.V6i1.4145>
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods In Education* (7th Ed). Routledge.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, And Mixed Methods Approaches*.
- Derwing, T. M., & Munro, M. J. (2015). *Pronunciation Fundamentals: Evidence-Based Perspectives For L2 Teaching And Research* (Vol. 42). John Benjamins Publishing Company. <https://doi.org/10.1075/Lilt.42>
- Donal, A. (2016). Indonesian Students' Difficulties In Pronouncing English Diphthongs.
- Dutta, A. (2021). Minimal Pairs, Minimal Fields And Implicit Constant Fields. *Journal Of Algebra*, 588, 479–514. <https://doi.org/10.1016/J.Jalgebra.2021.09.008>
- Ericsson Nordgren, C. (2019). Phonetics Of Vowels. In C. Ericsson Nordgren, *Oxford Research Encyclopedia Of Linguistics*. Oxford University Press. <https://doi.org/10.1093/Acrefore/9780199384655.013.405>
- Farhat Jahara, S., & Hussein Abdelrady, A. (2021). Pronunciation Problems Encountered By Efl Learners: An Empirical Study. *Arab World English Journal*, 12(4), 194–212. <https://doi.org/10.24093/Awej/Vol12no4.14>
- Ghanbari, F., & Hashemian, M. (2014). The Effects Of English Songs On Young Learners' Listening Comprehension And Pronunciation. 6.
- Habibi, M. W. (2016). English Pronunciation Problems Encountered By Indonesian Advanced Students. <http://etheses.uin-malang.ac.id/4094/1/12320063.pdf>
- Hamzah, D. M. H., & Bawodood, A. M. A. (2019). Teaching English Sounds Via Minimal Pairs: The Case Of Yemeni Efl Learners. *Journal Of English Language And Literature*, (3). <https://doi.org/10.33329/Joell.63.97>
- Handayani, F. (2021). The Use Of Minimal Pairs Technique To Improve Tenth Grade Students Pronunciation Ability At The Ma Assulamy Langko.
- Hidayatullah, M. R., Rifai, A., & Rohmana, W. I. M. (2024). The Analysis Pronunciation Challenges Of English Consonants Between English Education

- Students And English Letter Students Of Uin Maulana Malik Ibrahim. *Jurnal Bahasa, Sastra, Dan Studi Amerika*, 30(2), 1.
<https://doi.org/10.20961/jbssa.v30i2.96290>
- Indriana Dewi Mawarni Marpaung, Sefia Alia Riska Sipayung, & Yani Lubis. (2023). Student's Perspective: Using Minimal Pairs Technique To Improve Pronunciation. *Sinar Dunia: Jurnal Riset Sosial Humaniora Dan Ilmu Pendidikan*, 2(3), 60–68. <https://doi.org/10.58192/sidu.v2i3.1117>
- Islamiyah, A. N. (2024). English Education Department Faculty Of Education And Teacher Training Universitas Islam Negeri K.H. Abdurrahman Wahid Pekalongan 2024.
- Kaharuddin, A., Muhammad, H., Tahir, M., & Nurjaya, M. (2020). Problematic English Segmental Sounds: Evidence From Indonesian Learners Of English. https://www.researchgate.net/publication/349302262_Problematic_English_Segmental_Sounds_Evidence_From_Indonesian_Learners_Of_English
- Kent, R. D., & Rountrey, C. (2020). What Acoustic Studies Tell Us About Vowels In Developing And Disordered Speech. *American Journal Of Speech-Language Pathology*, 29(3), 1749–1778. https://doi.org/10.1044/2020_ajslp-19-00178
- Kholid, M. R., & Haryanto P, F. I. (2017). Is Peer Interaction Necessary For Optimal Active Learning? Using Minimal Pairs For Improved Students' Pronunciation Ability. *English Education: Jurnal Tadris Bahasa Inggris*, 10(1), 135–148. <https://doi.org/10.24042/ee-jtbi.v10i1.880>
- Kurniawati, A. Z. (2021). The Effectiveness Of Minimal Pairs Technique To Improve Students' Accuracy In Pronunciation Skills For Junior High School Students At Smpn 1 Lengkong In The Academic Year 2020/2021. 16.
- Labad, C. M. B., Rabena, R. P., Garduce, S. J. S., & Neri, E. (2024). Speaking Difficulties And Academic Performance In English Among Junior High School Students. *International Journal Of Research And Innovation In Social Science*, Viii(Iiis), 2645–2656. <https://doi.org/10.47772/ijriss.2024.803192s>
- Lee, J., Jang, J., & Plonsky, L. (2015). The Effectiveness Of Second Language Pronunciation Instruction: A Meta-Analysis. *Applied Linguistics*, 36(3), 345–366. <https://doi.org/10.1093/applin/amu040>

- Levis, J., & Cortes, V. (2008). Minimal Pairs In Spoken Corpora: Implications For Pronunciation Assesment And Teaching.
- Listyani, Kurniawan, A., & Thren, A. T. (2024). The Influence Of The Mother Tongue On English Pronunciation: A Case Study On Indonesian Efl Learners. *Jet (Journal Of English Teaching)*, 10(1), 61–75.
<https://doi.org/10.33541/Jet.V10i1.5488>
- Lubis, Y., Nadilla, S., & Rayani, J. R. (2025). Students' Understanding Of English Pronunciation.
- Luthfianda, S., Irawan, Y., Rahayu, R., & Hidayat, S. (2024). Exploring Pronunciation Challenges: Indonesian University Students' Production Of English Fricative Sounds. *English Review: Journal Of English Education*, 12(1), 85–94. <https://doi.org/10.25134/Erjee.V12i1.7606>
- Meiliasari, E., Lorentza, L. P., Ratimaya, M. Y., & Umam, A. K. (2024). The Effectiveness Of Using Tiktok In Learning Pronunciation Subjects In The English Language Education Study Program, Wiralodra University, Indramayu. 2(2).
- Murphy, J. M., & Baker, A. A. (2015). History Of Esl Pronunciation Teaching. In *The Handbook Of English Pronunciation* (Pp. 36–65).
- Mutia, M. (2025). Developing An English Pronunciation Assessment Tool For 10th Grade Students: A Case Study At Jabal Rahmah Mulia High School.
- Nur'aini, S. (2024). Analysing The Acoustic Evidence Of Consonant Productions Among Students At The University Level. *Litera*, 23(1), 76–90.
<https://doi.org/10.21831/Ltr.V23i1.67775>
- Nurhalimah, Siti. (2021). The Effect Of Using Phonetic Alphabet For Bahasa Indonesia (Pabi) On The English Pronunciation For Efl University Student.
- Onwochei, M. O., & Bako, A. (2024). Influence Of Mother Tongue On English Pronunciation: A Contrastive Analysis Of Bogghom And English Phonemes. *International Journal Of Arts And Humanities*, 2(1), 72–88.
<https://doi.org/10.61424/Ijah.V2i1.98>
- Pennington, M. C., & Rogerson-Revell, P. (2019). The Nature Of Pronunciation. In M. C. Pennington & P. Rogerson-Revell, *English Pronunciation Teaching*

- And Research (Pp. 1–55). Palgrave Macmillan Uk.
https://doi.org/10.1057/978-1-137-47677-7_1
- Pourhosein Gilakjani, A. (2016). The Significance Of Pronunciation In English Language Teaching. *English Language Teaching*, 5(4), P96.
<https://doi.org/10.5539/elt.v5n4p96>
- Proctor, M. (2021). Consonants. In R.-A. Knight & J. Setter (Eds.), *The Cambridge Handbook Of Phonetics* (1st Ed., Pp. 65–105). Cambridge University Press.
<https://doi.org/10.1017/9781108644198.004>
- Qisthia, B. (2023). The Influence Of Minimal Pairs Technique Towards Students' Pronunciation Mastery At The Eighth Grade Of Al-Muhajirin Junior High School In Bandar Lampung Of 2022/2023 Academic Year.
- Recasens, D., & Rodríguez, C. (2016). A Study On Coarticulatory Resistance And Aggressiveness For Front Lingual Consonants And Vowels Using Ultrasound. *Journal Of Phonetics*, 59, 58–75.
<https://doi.org/10.1016/j.wocn.2016.09.002>
- Salim, A., Terasne, T., & Narasima, L. (2020). Enhancing The Students' Pronunciation Using Shadowing Technique At Senior High School Students. *Journal Of Languages And Language Teaching*, 8(1), 20.
<https://doi.org/10.33394/jollt.v8i1.2212>
- Suzukida, Y., & Saito, K. (2022). What Is Second Language Pronunciation Proficiency? An Empirical Study. *System*, 106, 102754.
<https://doi.org/10.1016/j.system.2022.102754>
- Tabain, M., Kochetov, A., & Beare, R. (2020). An Ultrasound And Formant Study Of Manner Contrasts At Four Coronal Places Of Articulation. *The Journal Of The Acoustical Society Of America*, 148(5), 3195–3217.
<https://doi.org/10.1121/10.0002486>
- Tambunsaribu, G., & Simatupang, M. S. (2021). Pronunciation Problems Faced By Indonesian College Students Who Learn To Speak English. *Clinical Medicine*, 08(02).
- Thomson, R. I., & Derwing, T. M. (2015). The Effectiveness Of L2 Pronunciation Instruction: A Narrative Review. *Applied Linguistics*, 36(3), 326–344.
<https://doi.org/10.1093/applin/amu076>

- Wahyuni, Y., & Indraswari, T. I. (2022). The Effectiveness Of The Minimal Pairs Technique In Learning Japanese Pronunciation. *Journal Of Japanese Language Education And Linguistics*, 6(1), Press.
<https://doi.org/10.18196/jjlel.v6i1.13879>
- Widiantari, I., Aunurrahman, A., & Sahrawi, S. (2021). An Analysis Of Mother Tongue Interference In English Pronunciation. *Journal Of English Language Teaching And Education (Jelte)*, 2(1).
<https://doi.org/10.31571/jelte.v2i1.45>
- Wiranda, A., Lestari, T. D., & Lubis, Y. (2023). The Role Of English Consonants In Language Development: Acquisition And Articulation. *Jurnal Multidisiplin Dehasen (Mude)*, 2(3). <https://doi.org/10.37676/mude.v2i3.4393>
- Yulianti, L. D., Marhum, M., & Kamaruddin, A. (2025). Pronunciation Problems Of English Segmental Sounds Encountered By Efl Learners Of English Education Study Program. 13.
- Zannah, U. N., Sri Mulyani, Tri Sulistianingsih, Tiara Amanda, Dhea Aprilia Nasution, & Dwi Yuli Astuti. (2023). Analysis Of Indonesian Junior High School Students' Problem In Learning English. *Indonesian Journal Of Elt And Applied Linguistics*, 2(1), 10–15.
<https://doi.org/10.32696/ijel.v2i1.2183>

APPENDICES

Appendix 1 Research Permit


KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
FAKULTAS ILMU TARBİYAH DAN KEGURUAN
Jalan Gajayana 53, Telepon (0341) 552355 Faksimile (0341) 552356 Malang
http://fiba.uin-malang.ac.id, email: fiba@uin-malang.ac.id

Nomor : 402/Un.03.1/TL.01.04/01/2026
Sifat : Penting
Lampiran : -
Hal : 1
Hal : Permohonan Izin Penelitian

Kepada
Yth. Kepala Badan Kesatuan Bangsa dan Politik Kota Mojokerto
Di Mojokerto

Assalamu'alaikum Wr. Wb.

Dengan hormat, dalam rangka menyelesaikan tugas akhir berupa penyusunan Skripsi mahasiswa Fakultas Ilmu Tarbiyah dan Keguruan (FITK) Universitas Islam Negeri Maulana Malik Ibrahim Malang, kami mohon dengan hormat agar mahasiswa berikut:

Nama	: Sabrina Mirza Azmi
NIM	: 2.20107110026+11
Jurusan	: Tadris Bahasa Inggris (TBI)
Semester-Tahun Akademik	: Genap - 2025/2026
Judul Skripsi	: The Effectiveness of Minimal Pairs in Increasing Student Master Pronunciation Among Junior High School
Lama Penelitian	: Februari 2026 sampai dengan Maret 2026

Di berikan izin untuk melakukan penelitian di SMP Negeri 4 Kota Mojokerto secara offline.

Demikian, atas perhatian dan kerjasama Bapak/Ibu yang baik di sampaikan terimakasih.

Wassalamu'alaikum Wr. Wb.


Muhammad Walid, MA
NIP. 19730823 200003 1 002

Appendix 2 Research Permit from BAKESBANGPOL


PEMERINTAH KOTA MOJOKERTO
SEKRETARIAT DAERAH KOTA
Jalan Gajah Mada No. 145 Telepon (0321) 321746 - 321750
MOJOKERTO 61314

0321 - 321750

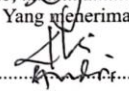
BAGIAN UMUM
TANDA TERIMA

Sudah terima dari : Fakultas Ilmu Tarbiyah Dan Keguruan

Nomor dan tanggal surat : 402/Un.03.1/TL.01.04.01/2026

Perihal : Permohonan Izin Penelitian

Untuk pertanyaan dan keputusan tentang surat yang dikirim bisa menghubungi No. Telp. 0321 - 321750 ke :
SUB BAGIAN TATA USAHA

Mojokerto, 30 Jan 2026
Yang menerima




PEMERINTAH KOTA MOJOKERTO
BADAN KESATUAN BANGSA DAN POLITIK
Jalan Benteng Pancasila No. 21 B Tlp/Fax. (0321) 328704 Kode Pos (61314)
email-bakesbangpol@mojokertokota.go.id
MOJOKERTO

Mojokerto, 03 Februari 2026

Nomor : 200.1.3/ 352 / 417.604.3/2026
Sifat : Biasa
Lampiran : 1 (Satu) Berkas
Perihal : Penelitian/Survey/Research/Skripsi/Tesis

Yth. Sdr Kepala Sekolah Menengah Pertama Negeri 4 Kota Mojokerto
di-
MOJOKERTO

Berdasarkan : 1. Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 3 Tahun 2018 Tentang Penerbitan Surat Keterangan Penelitian
2. Peraturan Walikota Mojokerto Nomor 61 Tahun 2022 tentang Kedudukan, Susunan Organisasi Tugas dan Fungsi serta tata kerja Badan Kesatuan Bangsa dan Politik Kota Mojokerto.

Menunjuk surat : UIN Maulana Malik Ibrahim Malang
Fakultas : Tarbiyah dan Pelatihan Guru
Program Studi : Tadris Bahasa Inggris
Nomor : 402/UO.03.1/TL.01.04/01/2026
Tanggal : 28 Januari 2026
Perihal : Permohonan Izin Penelitian

Bersama ini menerangkan bahwa:

Nama : Sabrina Mirza Azmi
Alamat : JL. Pandu Dewanata U-17 Japan, Ds. Japan, RT.003/RW.011, Kec. Sooko, Kab. Mojokerto

No. Induk /KTM/KTP : 220107110025
No. Telp : 085706350872

Pekerjaan/PST/PTN : Mahasiswa
Kebangsaan : Indonesia.

Bermaksud mengadakan Penelitian/Survey/Research/Skripsi/Tesis:

Judul : The Effectiveness of Minimal Pairs in Increasing Student Master Pronunciation Among Junior High School.

Tujuan/bidang : The objective of the study is to measure the effect of using the minimal pairs technique on improving students' English pronunciation skills towards English communication in junior high school.

Dosen Pembimbing : Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed

Peserta : 1 (satu) Mahasiswa

Terhitung Mulai : 06 Februari 2026 s/d 31 Maret 2026

Lokasi : Sekolah Menengah Pertama Negeri 4 Kota Mojokerto

Sehubungan dengan hal tersebut, diharapkan dukungan dan kerjasama pihak terkait untuk memberikan bantuan yang diperlukan. Adapun kepada peneliti agar memperhatikan hal-hal sebagai berikut :

1. Berkewajiban menghormati dan mentaati peraturan dan tata tertib yang berlaku di daerah setempat;
2. Pelaksanaan penelitian/survey/research agar tidak disalahgunakan untuk tujuan tertentu yang dapat mengganggu kestabilan keamanan dan ketertiban di daerah setempat;
3. Melaporkan hasil penelitian dan sejenisnya kepada Bakesbangpol Kota Mojokerto.

Demikian Untuk menjadi maklum.

KEPALA BADAN KESATUAN BANGSA DAN POLITIK
KOTA MOJOKERTO


IKROMUL YASAK, S.Sos.MM
Pembina Utama Muda
NIP.19720830 19921 1 002

Tembusan Yth :

1. Ibu Wali Kota Mojokerto (sebagai laporan)
2. Sdr. Yang Bersangkutan

Appendix 3 Letter of Completion Research



PEMERINTAH KOTA MOJOKERTO
DINAS PENDIDIKAN DAN KEBUDAYAAN
SEKOLAH MENENGAH PERTAMA NEGERI 4
Jl. LOMBOK, NO. 11 TELP/Fax (0321) 5884040
Website: smp4mojokerto.com Email: smp4mojokerto@gmail.com
MOJOKERTO 61321

SURAT KETERANGAN PENELITIAN
Nomor : 400.3.5/202/417.501.65/2026

Yang bertandatangan di bawah ini :

N a m a : MOCHAMAD YASIN, S.Pd
N I P : 197003022005011013
Pangkat / Golongan : Pembina Tingkat I, IV/b
Jabatan : Kepala SMP Negeri 4 Kota Mojokerto

Dengan ini menerangkan dengan sesungguhnya, bahwa :

N a m a : SABRINA MIRZA AZMI
N I M : 220107110025
Jurusan : Tadris Bahasa Inggris
Universitas : UIN Maulana Malik Ibrahim Malang

Yang bersangkutan telah melaksanakan penelitian di SMP Negeri 4 Kota Mojokerto pada tanggal 06 Februari 2026 s/d 31 Maret 2026 dengan judul :

" The Effectiveness of Minimal Pairs in Increasing Student Master Pronunciation Among Junior High School "

Demikian Surat Keterangan Penelitian ini kami berikan kepada yang bersangkutan untuk dapat dipergunakan seperlunya.

Mojokerto, 13 April 2026
Kepala Sekolah

MOCHAMAD YASIN, S.d
NIP. 197003022005011013

CS Scanned with CamScanner

Appendix 4 Validation Sheet

Validations Sheet

Instrument Validation Sheet of Pre-Test and Post-test for Research Entitled
"The Effectiveness of Minimal Pairs in Increasing Students Master Pronunciation Among
Junior High School"

Validator : Harir Mubarak, M.Pd
 NIP : 19870708 201802011152
 Expertise : English Speaking and Listening a Teaching Development
 Instance : Maulana Malik Ibrahim State Islamic University of Malang
 Validation Date :

A. Introduction

This validation was made to obtain an assessment from the validator (Mr/Ms) on the research instrument used in this study. Every comment and suggestion given is very useful to improve the quality of the research instrument. Thank you for your willingness to become a validator instrument in this research.

B. Guidance

1. In this section, asses by ticking (✓) with the following criteria to the columns bellow:

- 1: Not Relevant
- 2: Slightly Relevant
- 3: Relevant
- 4: Highly Relevant

2. Please give comments and suggestion in the columns below:

C. Validation Sheet

No	Aspect	Score			
		1	2	3	4
1.	Suitability of Instrument with basic competencies			✓	
2.	The test item accurately elicits the correct production of the intended consonant phoneme			✓	
3.	The test item accurately elicits the correct production of the intended vowel phoneme			✓	
4.	The test item minimizes the possibility of unintended phoneme substitution that could obscure accurate pronunciation.			✓	

5.	The research instrument can help the research find out students abilities in vocabulary mastery			✓	
6.	The minimal pair clearly contrasts two distinct phonemes that are auditorily distinguishable.			✓	
7.	The phonemic contrast is relevant and appropriate for Indonesian Junior High School EFL learners' pronunciation difficulties.			✓	
8.	The item appropriately represents voicing differences			✓	
9.	The contrast allows raters to clearly distinguish correct and incorrect pronunciation.			✓	
10.	The articulatory features (place and manner of articulation) are clearly represented in the item.			✓	

D. Suggestion

I hope the instrument can be used to get the data in the field

E. Conclusion

Based on the validation sheet above, it can be concluded that the instruments that have been made is:

Please cross out (abcd) the answer that doesn't match the conclusion you gave.

- ☒ a. The instrument can be used without revision.
- b. The instrument can be used with alight revision.
- c. The instrument can be used with many revisions.
- d. The instrument can be used.

Malang, 27 Januari 2026
 Validator,



Harir Mubarak, M.Pd
 NIP. 19870708 201802011152

Appendix 5 Learning Module

MODUL AJAR SMPN 4 KOTA MOJOKERTO

A. INFORMASI UMUM

MATA PELAJARAN : BAHASA INGGRIS
PENYUSUN : ASTRITH ANGGARANI, S.PD
SATUAN PENDIDIKAN : SMPN 4 KOTA MOJOKERTO
TAHUN PENYUSUNAN : 2026
JENJANG/KELAS : SMP/VIII
FASE CP : D
CP : memahami dan menggunakan bahasa Inggris untuk berinteraksi dalam konteks sederhana dengan memperhatikan aspek kebahasaan, termasuk pengucapan (pronunciation), tekanan kata, dan intonasi, untuk mendukung keterpahaman makna dalam komunikasi lisan.

KOMPETENSI AWAL	1. Mampu mengenali dan mengucapkan kosakata bahasa Inggris sederhana yang sering digunakan dalam kehidupan sehari-hari. 2. Pernah terpapar bunyi-bunyi bahasa Inggris melalui kegiatan mendengarkan (listening) dan berbicara (speaking), meskipun masih terbatas. 3. Masih menunjukkan kesulitan dalam membedakan dan mengucapkan bunyi bahasa Inggris yang mirip (misalnya /e/-/æ/, /i/-/i:/, /u/-/u:/, serta beberapa bunyi konsonan). 4. Belum mendapatkan pembelajaran pronunciation secara eksplisit menggunakan teknik minimal pairs.
TUJUAN PEMBELAJARAN	1. Mengidentifikasi perbedaan bunyi fonem bahasa Inggris yang mirip melalui latihan minimal pairs. 2. Mengucapkan bunyi vokal dan/atau konsonan bahasa Inggris secara lebih tepat sesuai model. 3. Membedakan makna kata berdasarkan perbedaan pengucapan bunyi fonem.

	4. Menggunakan pengucapan yang lebih akurat dalam latihan berbicara sederhana.
MATERI	1. Pengertian pronunciation dalam bahasa Inggris. 2. Minimal pairs dan fungsinya dalam pembelajaran pronunciation. 3. Contoh minimal pairs (disesuaikan dengan materi): • /e/ – /æ/ (pen – pan) • /ɪ/ – /i:/ (ship – sheep) • /ʊ/ – /u:/ (full – fool) • Consonant contrast (misalnya /p/ – /b/, /t/ – /d/)
PROFIL PELAJAR PANCASILA	1. Bernalar Kritis: Peserta didik mampu membedakan dan menganalisis perbedaan bunyi fonem bahasa Inggris melalui latihan minimal pairs. 2. Mandiri: Peserta didik berlatih mengoreksi dan meningkatkan pengucapan secara bertahap melalui latihan listening dan speaking. 3. Gotong Royong: Peserta didik bekerja sama dalam latihan berpasangan atau kelompok kecil untuk saling memberi umpan balik pengucapan. 4. Kreatif: Peserta didik menggunakan variasi kata dan pengucapan dalam latihan lisan sederhana.
MODEL PEMBELAJARAN	Drilling, Listening and repeating, Minimal pairs practice, Question and answer
TARGET PESERTA DIDIK	Siswa Reguler
JUMLAH PESERTA DIDIK	Maksimum 35-40 siswa
SARANA DAN PRASARANA	1. Media: Audio dan video pronunciation, papan tulis, handout minimal pairs 2. Sumber Belajar: • Buku teks Bahasa Inggris Kelas VIII

	Kamus atau audio pronunciation bahasa Inggris
ASESMEN	Individu, berpasangan kelompok Jenis Asesmen: Lisan, unjuk kerja
PEMAHAMAN BERMAKNA	Pengucapan yang tepat dalam bahasa Inggris sangat penting untuk menyampaikan makna secara jelas. Perbedaan satu bunyi saja dapat menyebabkan perbedaan makna kata. Melalui latihan minimal pairs, peserta didik memahami bahwa mengenali dan memproduksi bunyi bahasa Inggris secara akurat dapat meningkatkan kejelasan komunikasi lisan dan mengurangi kesalahpahaman dalam berkomunikasi.
PERTANYAAN PEMANTIK	1. Have you ever spoken a word in English but the person you were talking to didn't understand what you meant? 2. Do you think that even a very slight difference in pronunciation can change the meaning of a word in English?

B. KEGIATAN PEMBELAJARAN

KEGIATAN	AKTIVITAS PEMBELAJARAN
KEGIATAN AWAL	Peserta didik mendengarkan penjelasan singkat tentang pronunciation dan minimal pairs.- Peserta didik menyimak contoh pengucapan minimal pairs yang diberikan oleh guru atau melalui audio.- Peserta didik memperhatikan perbedaan bunyi pada setiap pasangan kata.
KEGIATAN INTI	A. Building of knowledge(BkoF) 1. Peserta didik diberikan video percakapan dengan beberapa vocabulary yang mirip dengan konteks berbeda. 2. Peserta didik diminta memperhatikan sebuah teks pronunciation dalam bentuk video. B. Modelling of The Topic (MoT) 1. Peserta didik memperhatikan penjelasan guru tentang video yang diperhatikan sebelumnya

	2. Peserta didik diberi penjelasan tentang speaking dan membuat kalimat dipikiran terkait dengan topic C. Join Construction of The Topic (JCoT) 1. Peserta didik diberikan contoh kalimat serta kosakata untuk diucapkan 2. Peserta didik diberikan lembar kerja berdasarkan topic D. Independent Construction of The Topic(ICoT) 1. Peserta didik mengucapkan kalimat yang telah dibuat.
TREATMENT	1. Peserta didik menirukan pengucapan kata-kata minimal pairs secara bersama-sama.- Peserta didik menirukan pengucapan secara individu.- Peserta didik menyadari perbedaan bunyi kecil yang memengaruhi makna kata. 2. Peserta didik berlatih mengucapkan minimal pairs secara berpasangan atau kelompok kecil. 3. Peserta didik mengikuti latihan membedakan bunyi (listening discrimination). 4. Peserta didik memperbaiki pengucapan berdasarkan umpan balik guru
PENUTUP	1. Peserta didik mempraktikkan kembali pengucapan beberapa minimal pairs. 2. Peserta didik menyimpulkan perbedaan bunyi yang telah dipelajari. 3. Peserta didik melakukan refleksi singkat tentang kesulitan dan kemajuan dalam pronunciation.

Appendix 6 Rater Validation Score

PRE-TEST INSTRUMEN FOR VALIDATOR

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1.	Ship – Sip	/ʃ/ – /s/	3	
2.	She – See	/ʃ/ – /s/	3	
3.	Gif – Give	/f/ – /v/	3	
4.	Proof – Prove	/f/ – /v/	4	
5.	Thought – Taught	/θ/ – /d/	3	
6.	Thin – Tin	/θ/ – /d/	4	
7.	Ship – Sheep	/ʃ/ – /f/	4	
8.	Bit – Beat	/t/ – /f/	3	
9.	Cap – Kep	/æ/ – /e/	3	
10.	Had – Head	/æ/ – /e/	3	
11.	Sit – Seat	/t/ – /f/	3	
12.	Pen – Pan	/e/ – /æ/	3	
13.	Full – Fool	/u/ – /u:/	3	
14.	Cat – Cut	/æ/ – /e/	3	
15.	Bet – Bat	/e/ – /æ/	3	
16.	Fit – Feet	/t/ – /f/	4	

17.	Had – Bed	/æ/ – /e/	3	
18.	Pull – Pool	/u/ – /u:/	4	
19.	Sit – Seat	/t/ – /f/	3	
20.	Cab – Cup	/æ/ – /e/	4	
21.	Fast – Past	/f/ – /p/	3	
22.	Berry – Verry	/b/ – /v/	3	
23.	Bat – But	/æ/ – /e/	4	
24.	Catch – Cat	/t/ – /d/	3	
25.	Sea – She	/s/ – /ʃ/	3	

Malang, 27 Januari 2026
Validator,


Harry Mubandak, M.Pd
NIP.19870708 201802011152

Pre-Test Instrument For Validator

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1.	Ship – Sip	/ʃ/ – /s/	4	
2.	She – See	/ʃ/ – /s/	4	
3.	Gif – Give	/f/ – /v/	4	
4.	Proof – Prove	/f/ – /v/	4	
5.	Thought – Taught	/θ/ – /d/	4	
6.	Thin – Tin	/θ/ – /d/	3	
7.	Ship – Sheep	/ʃ/ – /f/	4	
8.	Bit – Beat	/t/ – /f/	4	
9.	Cap – Kep	/æ/ – /e/	4	
10.	Had – Head	/æ/ – /e/	4	
11.	Sit – Seat	/t/ – /f/	4	
12.	Pen – Pan	/e/ – /æ/	4	
13.	Full – Fool	/u/ – /u:/	4	
14.	Cat – Cut	/æ/ – /e/	4	
15.	Bet – Bat	/e/ – /æ/	4	

16.	Fit – Feet	/t/ – /f/	4	
17.	Bad – Bed	/æ/ – /e/	4	
18.	Pull – Pool	/u/ – /u:/	3	
19.	Sit – Seat	/t/ – /f/	4	
20.	Cab – Cup	/æ/ – /e/	3	
21.	Fast – Past	/f/ – /p/	4	
22.	Berry – Verry	/b/ – /v/	4	
23.	Bat – But	/æ/ – /e/	3	
24.	Catch – Cat	/t/ – /d/	4	
25.	Sea – She	/s/ – /ʃ/	4	

Mojokerto, 29 Januari 2026
Guru Mata Pelajaran,


Astrith Anggarani, S.Pd
NIP.198411022009032004

PRE-TEST INSTRUMEN FOR VALIDATOR

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1	Ship - Sip	/ʃ/ - /s/	4	
2	She - See	/ʃ/ - /s/	4	
3	Gift - Give	/f/ - /v/	4	
4	Proof - Prove	/f/ - /v/	4	
5	Thought - Taught	/θ/ - /t/	4	
6	Thin - Tin	/θ/ - /t/	4	
7	Ship - Sheep	/ʃ/ - /ʃ/	3	
8	Bit - Beat	/t/ - /b/	4	
9	Cap - Kep	/æ/ - /e/	4	
10	Had - Head	/æ/ - /e/	4	
11	Sit - Scat	/t/ - /s/	4	
12	Pen - Pan	/e/ - /æ/	4	
13	Full - Fool	/u/ - /u/	4	
14	Cat - Cut	/æ/ - /u/	4	
15	Bet - Bat	/e/ - /æ/	4	
16	Fit - Feet	/t/ - /t/	3	

17	Bad - Bad	/æ/ - /e/	4	
18	Pull - Pull	/u/ - /u/	4	
19	Sit - Scat	/t/ - /s/	4	
20	Cab - Cup	/æ/ - /u/	4	
21	Fast - Past	/f/ - /p/	4	
22	Berry - Verry	/e/ - /e/	4	
23	Hat - Hut	/æ/ - /u/	4	
24	Catch - Cat	/tʃ/ - /t/	4	
25	Sea - She	/s/ - /ʃ/	4	

Mojokerto, 29 Januari 2026
Validator,


Anik Herawati, M.Pd
NIP. 19854112020099032604

POST-TEST INSTRUMEN FOR VALIDATOR

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1	Sheep - Seep	/f/ - /s/	4	
2	Shop - Sop	/f/ - /s/	4	
3	Fail - Veil	/f/ - /v/	3	
4	Safe - Save	/f/ - /v/	4	
5	Thank - Tank	/θ/ - /t/	3	
6	Thick - Tick	/θ/ - /t/	3	
7	Slip - Sleep	/ʃ/ - /s/	3	
8	Rich - Reach	/ʃ/ - /s/	3	
9	Sad - Said	/æ/ - /e/	3	
10	Man - Men	/æ/ - /e/	3	
11	Lip - Leap	/t/ - /s/	4	
12	Bed - Bad	/e/ - /æ/	4	
13	Cook - Kook	/u/ - /u/	4	
14	Cup - Cup	/æ/ - /u/	3	
15	Set - Sat	/e/ - /æ/	3	
16	Live - Leave	/t/ - /t/	3	

17	Pack - Peck	/æ/ - /e/	3	
18	Foot - Food	/u/ - /u/	4	
19	Chick - Check	/t/ - /s/	3	
20	Hat - Hut	/æ/ - /u/	4	
21	Fan - Pan	/f/ - /p/	3	
22	Beat - Vote	/e/ - /e/	3	
23	Bag - Bug	/æ/ - /u/	4	
24	Cheap - Tip	/tʃ/ - /t/	3	
25	Sell - Shell	/s/ - /ʃ/	4	

Malang, 27 Januari 2026
Validator,


Hayri Mubajok, M.Pd
NIP. 19870708 201802011152

Post-Test Instrument For Validator

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1.	Sheep - Seep	/ʃ/ - /s/	4	
2.	Shop - Sop	/ʃ/ - /s/	4	
3.	Fail - Veil	/f/ - /v/	4	
4.	Safe - Save	/f/ - /v/	3	
5.	Thank - Tank	/θ/ - /t/	4	
6.	Thick - Tick	/θ/ - /t/	4	
7.	Slip - Sleep	/l/ - /r/	4	
8.	Rich - Reach	/t/ - /r/	4	
9.	Sad - Said	/æ/ - /e/	4	
10.	Man - Men	/æ/ - /e/	4	
11.	Lap - Leap	/l/ - /r/	3	
12.	Bed - Bad	/e/ - /æ/	3	
13.	Cook - Kook	/o/ - /u/	3	
14.	Cap - Cup	/æ/ - /u/	4	
15.	Set - Sat	/e/ - /æ/	4	

16.	Live - Leave	/l/ - /r/	4	
17.	Pack - Peck	/æ/ - /e/	4	
18.	Foot - Food	/o/ - /u/	3	
19.	Chick - Check	/t/ - /r/	4	
20.	Hat - Hut	/æ/ - /e/	4	
21.	Fan - Pan	/f/ - /p/	4	
22.	Boat - Vote	/o/ - /u/	4	
23.	Bag - Bug	/æ/ - /e/	4	
24.	Cheap - Tip	/t/ - /r/	4	
25.	Sell - Shell	/s/ - /ʃ/	3	

Mojokerto, 29 Januari 2026
Guru Mata Pelajaran,



Astrith Anggarani, S.Pd
NIP.198411022009032004

POST-TEST INSTRUMEN FOR VALIDATOR

No	Minimal Pairs Vocabulary	Target Phoneme	Score (1-4)	Comment
1.	Sheep - Seep	/ʃ/ - /s/	4	
2.	Shop - Sop	/ʃ/ - /s/	4	
3.	Fail - Veil	/f/ - /v/	4	
4.	Safe - Save	/f/ - /v/	4	
5.	Thank - Tank	/θ/ - /t/	4	
6.	Thick - Tick	/θ/ - /t/	4	
7.	Slip - Sleep	/l/ - /r/	4	
8.	Rich - Reach	/t/ - /r/	4	
9.	Sad - Said	/æ/ - /e/	4	
10.	Man - Men	/æ/ - /e/	4	
11.	Lip - Leap	/l/ - /r/	4	
12.	Bed - Bad	/e/ - /æ/	4	
13.	Cook - Kook	/o/ - /u/	4	
14.	Cap - Cup	/æ/ - /u/	4	
15.	Set - Sat	/e/ - /æ/	4	
16.	Live - Leave	/l/ - /r/	4	

17.	Pack - Peck	/æ/ - /e/	4	
18.	Foot - Food	/o/ - /u/	4	
19.	Chick - Check	/t/ - /r/	4	
20.	Hat - Hut	/æ/ - /e/	3	
21.	Fan - Pan	/f/ - /p/	4	
22.	Boat - Vote	/o/ - /u/	4	
23.	Bag - Bug	/æ/ - /e/	3	
24.	Cheap - Tip	/t/ - /r/	4	
25.	Sell - Shell	/s/ - /ʃ/	4	

Mojokerto, 29 Januari 2026
Validator,



Arik Irawati, S.S., M.Pd
NIP.1985411202009032004

Appendix 7 Result Validity

[illegible][illegible]

Appendix 8 Pre- Test

INSTRUMEN PENILAIAN POST-TEST

Name:

Student Number/Class:

Students read the following minimal pairs aloud:

No	Minimal Pairs Vocabulary	Target Phoneme	Student Pronunciation	Score (0-1)
1.	Sheep – Seep	/ʃ/ – /s/		
2.	Shop – Sop	/ʃ/ – /s/		
3.	Fail – Veil	/f/ – /v/		
4.	Safe – Save	/f/ – /v/		
5.	Thank – Tank	/θ/ – /t/		
6.	Thick – Tick	/θ/ – /t/		
7.	Slip – Sleep	/ɪ/ – /i:/		
8.	Rich – Reach	/ɪ/ – /i:/		
9.	Sad – Said	/æ/ – /e/		
10.	Man – Men	/æ/ – /e/		
11.	Lap – Leap	/ɪ/ – /i:/		
12.	Bed – Bad	/e/ – /æ/		
13.	Cook – Kook	/ʊ/ – /u:/		
14.	Cap – Cup	/æ/ – /ʌ/		

15.	Bet – Bat	/e/ – /æ/		
16.	Fit – Feet	/ɪ/ – /i:/		
17.	Bad – Bed	/æ/ – /e/		
18.	Pull – Pool	/ʊ/ – /u:/		
19.	Sit – Seat	/ɪ/ – /i:/		
20.	Cab – Cup	/æ/ – /ʌ/		
21.	Fast – Past	/t/ – /p/		
22.	Berry – Verry	/b/ – /v/		
23.	Bat – But	/æ/ – /ʌ/		
24.	Catch – Cat	/tʃ/ – /t/		
25.	Sea – She	/s/ – /ʃ/		
Total Correct Items				___/25

Final Score : (Correct ÷ 25) × 100 = ____

Appendix 9 Post- Test

INSTRUMEN PENILAIAN POST-TEST

Name:

Student Number/Class:

Students read the following minimal pairs aloud:

No	Minimal Pairs Vocabulary	Target Phoneme	Student Pronunciation	Score (0-1)
1.	Sheep – Seep	/ʃ/ – /s/		
2.	Shop – Sop	/ʃ/ – /s/		
3.	Fail – Veil	/f/ – /v/		
4.	Safe – Save	/f/ – /v/		
5.	Thank – Tank	/θ/ – /t/		
6.	Thick – Tick	/θ/ – /t/		
7.	Slip – Sleep	/ɪ/ – /i:/		
8.	Rich – Reach	/ɪ/ – /i:/		
9.	Sad – Said	/æ/ – /e/		
10.	Man – Men	/æ/ – /e/		
11.	Lap – Leap	/ɪ/ – /i:/		
12.	Bed – Bad	/e/ – /æ/		
13.	Cook – Kook	/ʊ/ – /u:/		
14.	Cap – Cup	/æ/ – /ʌ/		

15.	Set – Sat	/e/ – /æ/		
16.	Live – Leave	/ɪ/ – /i:/		
17.	Pack – Peck	/æ/ – /e/		
18.	Foot – Food	/ʊ/ – /u:/		
19.	Chick – Check	/ɪ/ – /i:/		
20.	Hat – Hut	/æ/ – /ʌ/		
21.	Fan – Pan	/f/ – /p/		
22.	Boat – Vote	/b/ – /v/		
23.	Bag – Bug	/æ/ – /ʌ/		
24.	Cheap – Tip	/tʃ/ – /t/		
25.	Sell – Shell	/s/ – /ʃ/		
Total Correct Items				___/25

Final Score : (Correct ÷ 25) × 100 = ____

Appendix 10 Student Answer

INSTRUMEN PENILAIAN PRE-TEST

Name: Jessica A.K
 Student Number/Class: 13 / 811
 Students read the following minimal pairs aloud:

No	Minimal Pairs Vocabulary	Target Phoneme	Student Pronunciation	Score (0-1)
1.	Ship - Sip	/ʃ/ - /s/		1
2.	She - See	/ʃ/ - /s/		1
3.	Gif - Give	/f/ - /v/		1
4.	Proof - Prove	/f/ - /v/		0
5.	Thought - Taught	/θ/ - /t/		1
6.	Thin - Tin	/θ/ - /t/		1
7.	Ship - Sheep	/ʃ/ - /f/		1
8.	Bit - Beat	/t/ - /b/		1
9.	Cap - Kep	/m/ - /k/		1
10.	Had - Head	/m/ - /k/		1
11.	Sit - Seat	/t/ - /s/		1
12.	Pen - Pan	/e/ - /m/		1
13.	Full - Fool	/o/ - /u/	fo	0
14.	Cat - Cut	/m/ - /t/		1

15.	Bet - Bat	/e/ - /a/		1
16.	Fit - Feet	/t/ - /f/		1
17.	Bad - Bed	/m/ - /n/		1
18.	Pull - Pool	/u/ - /o/		1
19.	Sit - Seat	/t/ - /s/		1
20.	Cab - Cup	/m/ - /k/		1
21.	Fast - Past	/f/ - /p/		1
22.	Berry - Verry	/b/ - /v/		1
23.	Bat - But	/m/ - /n/		1
24.	Catch - Cat	/t/ - /d/		1
25.	Sea - She	/d/ - /f/		1
Total Correct Items				25

Final Score : (Correct ÷ 25) × 100 = ____

INSTRUMEN PENILAIAN POST-TEST

Name: Alfaro Dharma B. B. B.
 Student Number/Class: 80-3
 Students read the following minimal pairs aloud:

No	Minimal Pairs Vocabulary	Target Phoneme	Student Pronunciation	Score (0-1)
1.	Sheep - Seep	/f/ - /s/		1
2.	Shop - Sop	/f/ - /s/		1
3.	Fall - Vail	/f/ - /v/		1
4.	Safe - Save	/f/ - /v/		1
5.	Thank - Tank	/θ/ - /t/		1
6.	Thick - Tick	/θ/ - /t/		1
7.	Slip - Sleep	/t/ - /f/		1
8.	Rich - Reach	/t/ - /f/		1
9.	Sad - Said	/m/ - /n/		1
10.	Man - Men	/m/ - /n/		1
11.	Lap - Leap	/t/ - /f/		1
12.	Bed - Bad	/m/ - /n/		1
13.	Cook - Kook	/o/ - /u/		1
14.	Pen - Cup	/m/ - /k/		1

15.	Set - Sat	/e/ - /a/		1
16.	Live - Leave	/t/ - /f/		1
17.	Pack - Peck	/m/ - /n/		1
18.	Foot - Food	/o/ - /u/		1
19.	Chick - Cheek	/t/ - /f/		1
20.	Hat - Hat	/m/ - /n/		1
21.	Fan - Pan	/f/ - /p/		1
22.	Boat - Vote	/o/ - /u/		1
23.	Bug - Bug	/m/ - /n/		1
24.	Chop - Tip	/t/ - /f/		1
25.	Sell - Shell	/d/ - /f/		1
Total Correct Items				25

Final Score : (Correct ÷ 25) × 100 = ____

Appendix 11 Documentation



Appendix 12 Evidence Guidance Consultation



KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
FAKULTAS ILMU TARBIYAH DAN KEGURUAN
 Jalan Gajayana 50 Telepon (0341) 552398, Faximile (0341) 552398 Malang
<https://fitk.uin-malang.ac.id>, email : fitk@uin-malang.ac.id

BUKTI KONSULTASI SKRIPSI

Nama : Sabrina Mirza Azmi
 NIM : 220107110025
 Program Studi : Tadris Bahasa Inggris
 Judul : The Effectiveness of Minimal Pairs in Increasing Students Master Pronunciation Among Junior High School
 Dosen Pembimbing : Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed
 NIP : 197410252008012015

No.	Tanggal	Materi Bimbingan	Catatan
1.	2 Juni 2025	Konsultasi judul proposal skripsi	
2.	1 Juli 2025	Konsultasi BAB I	
3.	3 Juli 2025	Konsultasi revisi BAB I	
4.	4 Juli 2025	Konsultasi BAB I & Kerangka Konsep BAB II	
5.	21 Oktober 2025	Konsultasi BAB II	
6.	24 November 2025	Konsultasi revisi BAB II dan BAB III	
7.	28 November 2025	Konsultasi BAB III & Persetujuan Seminar Proposal	
8.	21 Januari 2026	Konsultasi Instrument	
9.	29 April 2026	Konsultasi BAB IV	

Dosen Pembimbing

Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed
 NIP. 197410252008012015

Appendix 13 Curriculum Vitae

Curriculum Vitae

Nama Lengkap : Sabrina Mirza Azmi
Tempat, Tanggal Lahir: Mojokerto, 22 Juni 2004
Jenis Kelamin : Perempuan
Agama : Islam
Fakultas : Ilmu Tarbiyah dan Keguruan
Jurusan : Tadris Bahasa Inggris
Perguruan Tinggi : UIN Maulana Malik Ibrahim Malang
Alamat Rumah : Perum Japan Raya JL.Pandudewanata, Blok U/17,
Ds. Japan, Kec. Sooko, Kab. Pasuruan.
No. Hp/Telp : 085706350872
Alamat Email : sabrinaazmi17@gmail.com



Riwayat Pendidikan

1. 2009-2010 : Tk Tunas Bangsa
2. 2010-2016 : MI Nurul Huda 2
3. 2016-2018 : SMPN 1 Kota Mojokerto
4. 2019-2022 : SMA Darul Qur'an
5. 2022-2026 : UIN Maulana Malik Ibrahim Malang

Malang, May 6th 2026

Mahasiswa,

Sabrina Mirza Azmi

220107110025