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THE EFFICACY OF ENGLISH MOVIES IN DEVELOPING STUDENTS' PRONUNCIATION

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Abstract

This study investigates the efficacy of English movies as an audiovisual pedagogical tool to enhance the pronunciation skills of English as a Foreign Language (EFL) learners. Employing a pre-experimental research design, the study involved 14 third-semester students from the English Education Study Program at Universitas Muhammadiyah Palu. Data were collected through pre- and post-tests focusing on suprasegmental pronunciation features, supplemented by a post-intervention questionnaire to evaluate students' perceptions. Quantitative analysis revealed a highly significant improvement in pronunciation accuracy following the intervention, with mean scores increasing from 35.0 to 63.28 ($p < .05$). Questionnaire data corroborated these empirical gains, indicating that learners found the authentic audiovisual input highly engaging and effective in lowering their affective filter, which in turn boosted their speaking confidence and facilitated the imitation of native pronunciation. Despite these significant overall improvements, the study noted that 42% of the participants still faced challenges in distinguishing phonetically similar words. The findings conclude that while English movies serve as a highly effective and motivating medium for developing macro-level pronunciation skills, integrating explicit phonetic instruction may be necessary to address micro-level phonemic discrimination. These insights provide valuable implications for designing authentic, media-integrated pronunciation curricula in EFL contexts.

Keywords: Teaching, pronunciation, English movies.

BACKGROUND

In English as a Foreign Language (EFL) context, phonological competence is increasingly recognized as the cornerstone of communicative intelligibility. While effective communication relies on a coordinated development of vocabulary, grammar, and pronunciation (Gui & Ismail, 2024), pronunciation holds a primary role; grammatical accuracy and lexical richness are often rendered ineffective if the speaker's message is phonologically unintelligible (Fraser, 2020). Clear and accurate pronunciation enables learners to convey precise meanings, negotiate intercultural interactions confidently, and mitigate communication breakdowns (Walker et al., 2021). Consequently, pronunciation must transcend its traditional status as a secondary, drill-based skill and be situated at the core of communicative language teaching.

Despite its critical importance, pronunciation remains one of the most challenging areas for EFL learners, particularly at the tertiary level. Many university students continue to struggle with both segmental sounds and suprasegmental features, such as sentence stress, intonation patterns, and connected speech (Antaris & Omolu, 2019; Mappewali et al., 2025). These persistent difficulties often stem from a lack of exposure to authentic phonetic models and a heavy reliance on decontextualized mechanical drilling in traditional classrooms. Mispronunciations and inaccurate prosody not only obscure

meaning but also elevate learners' affective filters, resulting in diminished speaking confidence. This highlights an urgent pedagogical need for instructional approaches that provide comprehensible, contextualized phonological input while simultaneously engaging learners effectively.

The integration of audiovisual materials, specifically English-language movies, offers a robust theoretical solution to this pedagogical challenge. Unlike static audio recordings, movies provide authentic, rich linguistic input embedded within natural communicative contexts. They offer crucial paralinguistic cues—such as facial expressions, lip movements, and emotional context—that scaffold the cognitive processing of phonetic structures. Previous studies have indicated the potential of movie-based instruction and audiovisual input with subtitles in enhancing general pronunciation mastery among secondary school students (Nigrum, 2018; Rayasa, 2018). The dynamic combination of visual context and native-speaker modeling facilitates a deeper cognitive connection between sound production and meaning.

However, a significant gap remains in the current literature. While existing studies broadly acknowledge the benefits of audiovisual media, there is a paucity of empirical research specifically investigating how authentic movie input affects targeted *suprasegmental* features (e.g., emotion-driven intonation, syllable stress, and diction) among tertiary-level EFL learners. Furthermore, few studies have concurrently examined the objective phonetic gains alongside the learners' subjective perceptions and psychological responses to the medium. Relying solely on objective test scores provides an incomplete picture of how audiovisual tools influence learner autonomy and confidence.

To bridge this gap, this study aims to investigate the efficacy of English movies as a pedagogical tool for teaching pronunciation to tertiary EFL learners. Specifically, it seeks to answer the following research questions: (1) Does the integration of English movies significantly improve the suprasegmental pronunciation skills of third-semester students? and (2) What are the students' pedagogical and psychological perceptions of utilizing English movies as a pronunciation-enhancing medium? The findings are expected to provide empirical evidence and practical implications for designing authentic, media-integrated phonological curricula in higher education.

LITERATURE REVIEW

Movies, also known as films, are audiovisual works created for entertainment, education, or communication. They consist of moving images recorded and presented at a specific speed, usually accompanied by dialogue, music, and sound effects (Pavithra & Gandhimathi, 2024; Sondakh et al., 2021). According to Tomlinson at al. (2003), audiovisual media such as movies can motivate and engage students in language learning in an interesting and interactive way. Movies can also provide authentic contexts that help students understand how language is used in everyday situations.

Movie Genre

Movie genres are categories used to group films according to their themes, storytelling styles, and target audiences. They help viewers select films that match their interests and enable filmmakers to reach specific audiences. The following are several common movie genres.

Action films are characterized by fast-paced scenes, exciting stunts, and intense physical activity. They often include heroes and villains who race against time while engaging in shootings, fights, explosions, and chases (Pratista, 2008:14). As a result, these films create tension through conflicts between the protagonist and antagonist.

In contrast, comedy films aim to make audiences laugh through humorous situations, witty dialogue, and exaggerated

actions or characters. They usually contain light drama and often end happily (Oktavianus, 2015:4). Therefore, their primary purpose is to entertain audiences and create a sense of joy.

Drama films, on the other hand, focus on realistic characters and situations. They often explore themes such as love, loss, and personal struggles. Through emotional stories and detailed character development, dramas encourage audiences to respond deeply to the experiences portrayed (Oktavianus, 2015:4).

Unlike dramas, horror films aim to create fear, suspense, and shock. They may include frightening images, supernatural elements, and unexpected plot twists (Pratista, 2008:48). Horror films often take place in dark settings accompanied by frightening music and commonly feature paranormal events, monsters, or psychological terror.

Similarly, thriller films are built around suspenseful and gripping stories. They often involve crime, espionage, or psychological tension. For example, a thriller may portray an ordinary person who faces an unexpected and dangerous situation, such as becoming wrongly involved in a criminal case (Pratista, 2008:57). This genre frequently uses plot twists, surprising revelations, and fast-paced action. Moreover, thrillers can be combined with other genres, including drama, action, crime, politics, and science fiction.

Fantasy films differ from horror films because they generally emphasize magic, mythology, and imaginary worlds. They may feature magical creatures, epic quests, and themes of heroism and adventure. In addition, these films often show beautiful and unusual natural settings, such as rainforests, mountains, deserts, oceans, and remote islands (Oktavianus, 2015:6).

Another popular genre is the musical film, which uses songs and dances as important parts of the story. Musical films may also include elements of drama, romance, or comedy. According to Pratista (2008:51), they mainly target families, teenagers, and children. These films often present light stories about romance, success, popularity, and everyday experiences.

Finally, animation films use techniques such as hand-drawn animation, computer-generated imagery, and stop-motion animation (Hushain et al., 2023). Because of their visual flexibility, they can be enjoyed by people of all ages and may explore a wide range of genres and themes.

The Advantages of English Movies

Watching English-language movies has several benefits. They help students practice listening and speaking, improve pronunciation, and increase vocabulary.

First, movies help students practice listening. By watching English movies, students hear conversations spoken by native speakers. Rokni and Azzam (2014:721) explain that students' listening skills improved more when they watched movies with English subtitles than when they watched movies without subtitles. Movies also expose students to natural and informal English, including slang and expressions that are not often found in textbooks or dictionaries.

Second, movies help students improve their speaking skills. Listening to native speakers can improve fluency and help students understand how words are connected in sentences. Kalean (2013:155) argues that students can improve their speaking abilities by imitating actors when English-language films are used in EFL classes. Through movie dialogues, students can learn to connect words more naturally.

Third, movies can improve pronunciation. Many learners find English pronunciation difficult. According to Pratiwi (2010:140), English movies significantly improve learners' understanding of pronunciation. Before watching English movies, students often have difficulty with English stress patterns.

Fourth, movies can increase vocabulary. While watching English movies, students encounter new words and phrases. They can learn their meanings from the movie's context and translate them into Indonesian. Aldita (2021) states that watching English movies provides many benefits and helps improve students' English skills. Therefore, using English movies in education can improve students' language competence and fluency.

The Disadvantages of English Movies

First, watching movies can take a long time and may make students bored. It can also reduce the time available for other activities, such as writing and discussions. Mirvan (2013:65) states that students may become bored when watching a movie until the end because it can take more than an hour. As a result, students may have less time to complete other classroom tasks.

Second, students may focus more on the actors than on the learning objectives. Students may pay special attention to their favorite actors and actresses instead of the lesson. Ying and Zhang (2012:1011) state that movie performers can distract students and cause them to lose sight of the film's purpose. Consequently, students may have difficulty concentrating on their assigned tasks.

Third, students may imitate negative behavior shown by actors or actresses. According to Sargent (2005:350), many Hollywood actors and actresses are shown smoking in movies. Students may also imitate other inappropriate scenes, such as fighting, adult content, and smoking.

Pronunciation

English pronunciation can be challenging for some learners, so students need appropriate media to help them practice their pronunciation effectively. Pronunciation plays a vital role in spoken English communication. Harmer (2015:183) states that a mispronunciation will have a different understanding. This makes us realize that English pronunciation needs to be improved because it is crucial to have English pronunciation.

Features of pronunciation refer to the characteristics or components of spoken language that influence speech's clarity, intelligibility, and expressiveness. These features encompass various aspects of speech production, including phonemes, stress, intonation, rhythm, pitch, fluency, and articulation. According to Kelly (2000), it is often helpful to decompose it into its individual components to understand how something functions.

Pronunciation in English is generally divided into several main sound elements or components. The following are the types or key elements of pronunciation:

a. Suprasegmental features refer to aspects of speech that extend beyond individual speech sounds (phonemes) and involve elements such as stress, intonation, pitch, and timing.
b. Stress it is a suprasegmental feature that can significantly affect the meaning and interpretation of spoken language. In stressed syllables, there is typically greater force or prominence in the articulation, resulting in pitch, duration, and volume changes compared to unstressed syllables.
c. Intonation, Jones Jones (1958:59) states that when speaking, the voice's pitch-that is, the musical note generated by the vocal cords-changes continuously. In general, intonation can be divided into the following categories: (1) a rising intonation is when the pitch of the voice gradually increases; (2) a falling intonation begins as the pitch gradually decreases; (3) a drop in pitch followed by a rise is known as dipping intonation, and (4) the pitch of speaking intonation increases and falls.
d. Phoneme the unique sounds that make up a language are called phonemes. Even though people's articulation of sounds varies slightly, each sound's production

can nonetheless be characterized with a certain degree of accuracy.

e. Consonant, a consonant is a speaking sound made when the vocal tract's airflow is blocked or restricted. Consonants are created via various articulatory configurations, including the lips, tongue, teeth, palate, and other vocal apparatus parts, in contrast to vowels generated with a comparatively open vocal tract.
f. Vowel is a sound created when air flows freely. This indicates that vowel sounds are produced without the mouth becoming constricted. The vowel sound is divided into two types.

Teaching Pronunciation

Teaching is a process of conveying information to students. According to Cohen (2008), teaching is helping others learn to do specific tasks, which many people regularly engage in. Teaching pronunciation is essential for young Indonesian learners because it helps English students pronounce words correctly. Moreover, teachers play several crucial functions when teaching English pronunciation.

a. The teachers' role in teaching pronunciation includes the following:
   (1) To help the students hear, the teacher should assist students in recognizing and understanding the sounds. In this phase, the teacher explains the different sound categories, as each language has unique pronunciation features.
   (2) When helping students produce sounds, the teacher should guide them in imitating new sounds. If students cannot replicate a sound, the teacher can provide instructions or indications to help them produce the sound correctly.
   (3) When providing feedback, a teacher should monitor and pay attention to the student's participation, pronunciation skills, and performance throughout the learning process, offering constructive feedback to improve their abilities.
   (4) Devising activities is crucial. The teacher must design appropriate activities to teach pronunciation and consider various factors to ensure the teaching and learning process is conducted efficiently.
b. The student's role in learning English pronunciation. Students do not need to engage in many activities during the teaching and learning. Instead, they should focus on the material and respond to the content the teacher explains, making sure they are attentive and engaged in the lesson.

METHOD OF THE RESEARCH

The researcher used a quantitative approach to analyze the data. The researcher applied a pre-experimental research design, which, according to Sugiyono (2014:109), includes only one group or class that is given a pre-test and a post-test. This one-group pre-test and post-test design was carried out on one group without a control group or comparison, involving a pre-test and a post-test to measure students' pronunciation ability. Also, the research used a questionnaire to learn about students' perceptions of learning English using movies to enhance pronunciation ability.

The research was conducted at the English Education Study Program, Teacher Training and Education Faculty, Universitas Muhammdiyah Palu. The population of this research is third-semester students who have already passed the pronunciation Class, which consists of one class with fourteen students enrolled.

The sample is a subset of the study's target population. Because of the small number of participants, the researcher used the total sample technique; thus, this research's sampling consists of 14 students.

This study's independent variable is English movies, which are expected to influence the dependent variable. The

dependent variable is pronunciation, as the outcome is measured and potentially affected by the independent variable, English movies.

The researcher needed an instrument. He used tests and questionnaires as instruments. The test was divided into pre-test and post-test. The students were given the test to figure out their pronunciation ability. This research divided the test into two categories: pre-test and post-test. The purpose of the pre-test was to assess the students' initial ability in pronunciation skills, while the post-test aimed to evaluate any improvements in their pronunciation after the treatment. A questionnaire of fifteen statements was designed to investigate students' perceptions of the role of English pronunciation in language learning, including statements about their movie-watching habits.

The research computed the individual scores of the students' pre-test and post-test, and then the researcher calculated students' mean scores for both the pre-test and post-test; the individual score was obtained using the formula provided by Sudijono (2007:305):

$$\text{Students' score} = \frac{obtained\ score}{maximum\ score} \times 100$$

After calculating the individual scores, the researcher counted the mean scores for both the pre-test and post-test using the formula by Sudijono (2012:82):

$$M = \frac{\sum x}{N}$$

Where:
M= Mean (Average score of all students)
∑×= The total scores of all of the students
N= The number of students

Then, the researcher computed the Mean Deviation (Md). The formulation was taken from Sudijono (2012:305). It is as follows:

$$Md = \frac{\sum d}{n}$$

Where:
$Md =$ Mean deviation between pre-test and post-test
$\sum d =$ The summary of deviation
$n =$ The number of students

After counting the pre-test and post-test mean deviation, the researcher calculated the Sum of Square Deviation ($\Sigma x^2 d$). The formulation was taken from Arikunto (2010:349). It is as follows:

$$\sum x^2 d = \sum d^2 - \frac{(\Sigma d)^2}{n}$$

Where: $\sum x^2 d =$ The sum of square

$\sum d^2 =$ The sum of deviation

$n =$ The number of students

Finally, the researcher computed the $t_{counted}$ value using the following formulation from Arikunto (2010:349). It is proposed to know whether the students' pre-test and post-test values differed significantly. It was formulated as follows:

$$t = \frac{M\,d}{\sqrt{\frac{\Sigma \times 2d}{n(n-1)}}}$$

Where:
t = The value of $t_{counted}$
Md = The mean deviation of pre-test and post-test
$\sum x^2 d =$ The sum of the square deviation
$n =$ The number of students

FINDING AND DISCUSSION

Findings

The findings of this study are divided into two primary sections: the quantitative results derived from the pronunciation tests (pre-test and post-test) and the qualitative data obtained from the students'

questionnaires regarding their perceptions of the intervention.

The Impact of English Movies on Students' Pronunciation Skills

To evaluate the efficacy of English movies as a pedagogical tool for pronunciation, students underwent a six-week intervention focusing on suprasegmental features, including intonation, sentence stress, syllable stress, diction, and fluency. Pronunciation proficiency was measured before and after the intervention.

The quantitative analysis indicates a substantial improvement in students' pronunciation skills following the treatment. The pre-test results revealed a low baseline of pronunciation accuracy, with a mean score of 35.0. Following the audiovisual intervention, the post-test mean score increased significantly to 63.28. Statistical analysis using a paired-samples t-test confirmed that this improvement was highly significant, $t(13) = 6.30$, $p < .05$ (where $t_{counted} = 6.30 > t_{table} = 1.77$). These results empirically demonstrate that the integration of English movies into the pronunciation curriculum effectively enhanced the pronunciation accuracy of third-semester English education students.

Students' Perceptions of Movie-Based Pronunciation Learning

Quantitative data from the post-intervention questionnaire provided insights into students' learning experiences and perceptions. The results strongly support the test findings, indicating a highly positive reception to the audiovisual method.

All participants acknowledged the effectiveness of the method, with 64.29% strongly agreeing and 35.71% agreeing that watching English movies significantly improved their pronunciation skills. Furthermore, 100% of the students agreed that movies served as an effective medium for acquiring and understanding the pronunciation of unfamiliar vocabulary. The audiovisual input also positively impacted their mechanical and psychological speaking aspects: 78.57% of respondents reported that it was easier to imitate native pronunciation after observing it in a cinematic context, and 71.43% experienced increased confidence when speaking English. Finally, a majority (64.29%) found the movie-based approach to be inherently enjoyable, highlighting its value in creating a natural and engaging learning environment.

Discussion

The primary objective of this study was to ascertain the effectiveness of English movies in improving students' pronunciation skills and to explore their perceptions of this medium. The significant increase in the mean scores from the pre-test (35.0) to the post-test (63.28) provides compelling evidence that movies are a highly effective instructional tool for teaching phonetics and suprasegmental features. This finding strongly aligns with previous studies asserting that audiovisual media can significantly enhance speaking and pronunciation skills in EFL contexts by providing engaging and comprehensible input (Kalean, 2013; Mirvan, 2013; Rayasa, 2018).

The success of this intervention can be attributed to the nature of audiovisual media, which exposes learners to authentic, context-rich linguistic input (Rokni & Azzam, 2014). Unlike traditional rote repetition, movies present language as it is naturally used by native speakers, incorporating critical paralinguistic cues such as facial expressions, lip movements, and emotional context. During the treatment, focusing on specific elements, uch as intonation for expressing emotions and syllable stressing, allowed students to contextualize the sounds they heard. As Kelly (2000) suggests, effective pronunciation teaching must move beyond isolated sounds to include suprasegmental features within meaningful contexts. This aligns with the questionnaire findings, where

78.57% of students found it easier to imitate pronunciation after watching the movies. The dynamic visual reinforcement aids in the cognitive processing of phonetic structures, effectively bridging the gap between passive listening and active production (Ying & Zhang, 2012).

Furthermore, the integration of movies successfully lowered the students' affective filter. The questionnaire data revealed that learning through movies fostered a fun, natural environment (64.29%) and significantly boosted speaking confidence (71.43%). When students are engaged in a narrative, anxiety levels drop, leading to a higher willingness to participate in post-viewing conversational exercises. The fact that 100% of the respondents found movies effective for understanding new, unencountered words suggest that the surrounding cinematic context provides sufficient scaffolding for learners to deduce not only meaning but also correct phonetic articulation. This corroborates findings that integrating popular multimedia formats can significantly increase learner motivation and reduce language anxiety in pronunciation practice (Ilyas & Kaniadewi, 2023).

Overall, this study confirms the premise that incorporating authentic audiovisual materials like English movies moves pronunciation practice away from mechanical drilling and toward meaningful, contextualized communication (Fraser, 2020; Walker et al., 2021). This approach not only yields measurable academic improvements but also cultivates learner autonomy, motivation, and confidence in oral English production.

CONCLUSION AND SUGGESTION

Conclusion

This study concludes that the integration of English movies significantly enhances the pronunciation skills of EFL learners, specifically in mastering suprasegmental features. The empirical evidence demonstrates that audiovisual input effectively bridges the gap between phonetic theory and practical speaking ability. Furthermore, the pedagogical approach garnered highly positive student perceptions. Learners reported increased confidence, heightened motivation, and greater ease in imitating native pronunciation, which can be attributed to the contextualized and authentic nature of the cinematic input.

Despite these overall benefits, the study identified a specific challenge: a notable portion of the students (42%) still experienced difficulties in distinguishing phonetically similar words. This indicates that while movies are highly effective for improving overall fluency and macro-level pronunciation (such as intonation and stress), targeted, explicit phonetic instruction may still be necessary to aid learners in micro-level phonemic discrimination. Overall, English movies serve as an engaging, effective, and psychologically supportive medium for pronunciation development.

Suggestion

While this study provides valuable insights into audiovisual-based pronunciation learning, several limitations must be acknowledged to guide future investigations. First, the relatively small sample size restricts the generalizability of the findings. Future studies should replicate this experimental design using larger and more diverse participant cohorts across different proficiency levels. Second, the selection of cinematic materials is critical. Future research should meticulously curate movie selections to ensure a tighter alignment with the specific phonological targets of the assessment.

Additionally, future researchers are encouraged to refine the assessment instruments to capture a more robust and nuanced evaluation of both segmental and suprasegmental improvements. Moving forward, educators and researchers should

consider developing integrated instructional designs where audiovisual materials, classroom activities, and testing mechanisms are seamlessly aligned. Finally, addressing students' difficulties in recognizing phonetically similar words offers a promising avenue for future research. Subsequent studies could explore a blended approach, combining the authentic input of English movies with explicit phonetic discrimination exercises to maximize comprehensive pronunciation mastery.

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THE IMPACT OF TECHNOLOGY INTEGRATION ON EFL LEARNING OUTCOMES IN AN INDONESIAN JUNIOR HIGH SCHOOL

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Abstract

This study investigates the impact of technology integration on the English learning outcomes of seventh-grade students at MTs Muhammadiyah Al-Haq Palu. Employing a descriptive research design, data were collected through a combination of Likert-scale questionnaires, semi-structured interviews, classroom observations, and documentation. The findings reveal that technology-based platforms, such as E-learning Madrasah and audiovisual media, positively contribute to students' motivation, learning autonomy, and overall language outcomes. The majority of students reported that technological integration facilitated material comprehension and boosted their confidence in language skills. However, the study also identified significant barriers, including limited internet connectivity, inadequate device access, and learning distractions stemming from social media. The results emphasize that while technology offers constructive pedagogical benefits, its effectiveness relies heavily on strategic teacher intervention, robust infrastructure, and a blended approach that accommodates diverse learning styles.

Keywords: Educational technology, EFL learning outcomes, digital integration, blended learning.

BACKGROUND

In the contemporary educational landscape, technology is no longer merely an optional supplement; it has become a fundamental component of effective teaching and learning. Digital tools, including Learning Management Systems (LMS) and interactive platforms, expand access to instructional resources, promote independent learning, and enable students to engage with learning materials beyond the traditional classroom (Dancsa et al., 2023, p. 290; Wanritfen et al., 2025). In one example, it simplifies teachers' tasks through the use of LMS and provides students with access to digital learning resources, enabling them to enhance their learning abilities independently. According to an article (tekno.kompas.com: February 4, 2024), citing data from APJII, "Internet usage in Indonesia has reached 221.5 million people, or precisely 221,563,479 individuals." This highlights the growing use of technology such as the internet, which increases annually.

At the secondary education level, the strategic use of technology can increase student participation, address diverse learning needs, and support innovative pedagogical approaches. Evidence from secondary-school research indicates that structured digital integration is significantly associated with improved academic achievement (Hillmayr et al., 2020). Consequently, technology integration should be viewed not simply as an enhancement to instruction but as an essential factor in improving learning outcomes.

Nevertheless, the educational benefits of technology cannot be assumed to continue automatically, particularly within specific socio-educational contexts

(Handayani, 2023), following the COVID-19 pandemic. During the pandemic, platforms such as Zoom and Google Classroom were used extensively to sustain emergency remote teaching. However, preliminary observations at MTs Muhammadiyah Al-Haq Palu reveal a substantial decline in technology use after the return to face-to-face instruction. Digital resources, including YouTube and web-based instructional platforms, have been used far less frequently and have largely been replaced by traditional textbooks. This regression exposes a critical weakness in the sustainability of post-pandemic technology integration: although digital tools can support learning, their impact depends on consistent, purposeful, and contextually appropriate use. Therefore, this study investigates the continuing impact of technology on English language learning outcomes among seventh-grade students. Specifically, it seeks to determine how digital tools influence learning and to identify practical ways to integrate them effectively and sustainably into the post-pandemic curriculum.

LITERATURE REVIEW

Definition of the use Technology in Education

The use of technology in education involves the application of digital tools and the internet, which has become essential in today's digital era to assist both students and teachers in the learning process. This includes the use of computers or laptops, tablets, projectors, various applications such as educational videos and online quizzes, as well as other online platforms designed to enhance the educational experience. According to Effendi & Wahidy (2019), implementing and adapting to technology in learning is key to success and responsibility in facing changes in the globalization era. They emphasize that the advancements in modern technology necessitate that school education must adapt to the use of technology in teaching. This ensures that the education provided to students keeps pace with changes and helps teachers improve the quality of the teaching and learning process. Aside from that, according the Association for Educational Communications and Technology, (AECT) (1977), educational technology is a complex and integrated process that involves elements such as individuals, procedures, ideas, devices, and organizations to analyze problems, design, implement, evaluate, and manage solutions related to learning. Based on these two quotes, it can be seen that the use of technology is highly necessary in the globalization era, as it can help provide solutions related to the improvement of learning processes.

The Indonesian Ministry of Education, Culture, Research, and Technology has issued several regulations regarding the use of technology in junior high schools (SMP). One of the latest regulations is issued by the Ministry of Education and Culture (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia, 2024), which governs the curriculum for elementary and secondary schools. This regulation emphasizes the importance of integration in the learning process and aims to improve the quality of education. In addition to the 2024 regulation, the government also sets standards for educational facilities and infrastructure (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia, 2023a). This regulation aims to ensure that schools have sufficient technological facilities to support effective teaching and learning processes. Thus, quality assurance in education is essential, as outlined in Permendikbudristek No. 53 tahun 2023, which addresses quality assurance in higher education in Indonesia. This regulation is established to systematically and sustainably enhance the quality of education. Therefore, based on the three regulations issued by the Ministry of

Education and Culture, education must continue to progress to achieve better outcomes by adopting technology in learning as a means of adaptation.

Benefits of Using Technology in Education

The use of technology can significantly impact student learning outcomes and bring changes to the experiences of educators. Technology provides quick access to information and resources that students want to explore and study. Teachers can also make classroom learning more engaging, preventing it from becoming monotonous and boring, by incorporating videos, simulations, and interactive applications. This approach can enhance student motivation and involvement during lessons. According to Mulyadi et al., (2021), the use of technology can facilitate both students and teachers in the teaching and learning process, especially in language education. Students have many opportunities to gain extensive knowledge, allowing them to create an enjoyable learning environment. In other words, the use of technology in language learning provides convenience and opportunities for both students and teachers, and also enables students to create a more enjoyable and effective learning environment.

According to Arafat & Fitriani (2020), the goal of successful students learning is to acquire or develop new knowledge and skills. In this context, the use of technology can offer a new learning experience in the classroom. In conclusion technology also benefits teachers by making it easier for them to find and provide accessible materials using the technology. Furthermore, according to Criollo-C et al., (2021), learning that utilizes m-learning technology allows for the provision of various learning models, enabling students of the current generation to become accustomed to multitasking. Meanwhile, Wangge (2020) explains that the use of technology can enhance the quality of learning, broaden access to education, assist in visualizing abstract ideas, facilitate deeper understanding of the material being studied, and present learning content in a more engaging manner.

Based on the quotations from the experts above, it can be concluded that the use of technology not only enriches students' learning experiences but also enhances the effectiveness of teaching for teachers. Therefore, it can create a more productive and engaging collaborative learning environment.

Challenge of Using Technology in Education

The use of technology in education presents various challenges. One significant challenge is the limited infrastructure in remote areas, where access to computers and the internet remains difficult. According to Fu (2013), factors influencing technology use include the lack of availability of ICT equipment, time for lesson planning, technical and administrative support, the school curriculum, and the geographical location of the school.

Additionally, many teachers have not received training to effectively utilize technology in their teaching, leading to difficulties in adapting to these changes. Resistance to change also exists, as some educators and educational institutions continue to rely on traditional teaching methods. According to Fitriah et al., (2019), the condition of teachers does not fully support the current era of revolution, and many schools still have teachers who are not tech-savvy and are reluctant to educate themselves on technological advancements.

Furthermore, the use of technology can distract students, with smartphones and social media often diverting their attention from learning. According to Abidin et al., (2023), a major challenge for students in utilizing technology in classroom learning is that notifications from social media and other applications can distract them. Moreover, attention must be given to the

disparities in access, as not all students have smartphones or access to the internet.

Therefore, while technology offers numerous benefits in education, its effective implementation requires addressing infrastructure limitations, enhancing teacher training, overcoming resistance to change, and minimizing distractions for students. A holistic approach that includes adequate resources, professional development, and equitable access is essential to ensuring that technology serves as a tool for enhancing, rather than hindering, the learning experience.

Learning Outcomes

The learning outcomes achieved through the use of technology in education refer to the expected results during the learning process that leverages technology. With the integration of technology, students can develop critical skills such as problem-solving, creativity, and collaboration. Technology also provides access to a wide range of learning resources, accelerates mastery of material, and supports independent learning.

According to Bates (2015), technology can enrich the learning environment and help students develop critical thinking skills and digital competencies that will benefit them in the future. Additionally, Kozma (2003) states that technology can enhance student learning; when used effectively, it can transform the learning experience into a dynamic and interactive one, thereby improving learning outcomes. Based on these two quotes, it can be seen that the use of technology in education can transform students' critical thinking patterns while also providing a broader learning environment. This allows the learning experience to become more dynamic, ultimately enhancing students' learning outcomes.

With established learning outcomes, each school sets a Minimum Competency Criteria (KKM) as a benchmark to assess whether students have achieved the expected learning goals throughout the teaching and learning process by the end of the academic year. According to national standards (Kementerian Pendidikan dan Kebudayaan Republik Indonesia, 2013), KKM is a criterion that outlines the mechanism, procedures, and assessment instruments for evaluating student achievement. Educational assessment is part of a process of collecting and processing information to measure students' learning outcomes. In English lessons at MTs Muhammadiyah Al-Haq Palu, the English teacher has set the KKM at an average score of 75. The Minimum Mastery Criteria (KKM) set by the English teacher is based on the assessment of class participation, attendance, assignment scores, exam scores, and attitudes.

METHOD OF THE RESEARCH

Research Design

This study employed a descriptive mixed-methods approach to provide a comprehensive analysis of how technology impacts English learning outcomes. This design was selected because it allows for the integration of quantitative survey data to measure students' broader perceptions, alongside in-depth qualitative data to explore the underlying pedagogical experiences and instructional strategies utilized by the teacher.

Participants and Setting

The research was conducted at MTs Muhammadiyah Al-Haq Palu. The participants consisted of a purposive sample of 15 seventh-grade students and one English teacher. This specific cohort was selected to evaluate the transitional impact of technology use in post-pandemic classroom settings.

Data Collection Instruments

Data were gathered through four complementary instruments to ensure triangulation:

Questionnaire: A Likert-scale questionnaire was administered to the 15 students to quantitatively assess their perceptions, engagement levels, and perceived benefits of technology in English learning.
Semi-Structured Interviews: Face-to-face interviews were conducted with the English teacher to explore their instructional experiences, challenges, and perspectives on integrating digital tools (e.g., E-learning platforms and audiovisual media).
Observation: Direct classroom observations were carried out to monitor student participation and the practical implementation of technology-based versus traditional teaching methods.
Documentation: Academic records, including students' daily assignment scores (using platforms like the Madrasah Digital Report Card/RDM), lesson plans, and learning activity sheets (LKPD), were collected to corroborate the primary data.

Data Analysis

The data analysis followed a concurrent procedure. The quantitative data derived from the student questionnaires were analyzed using descriptive statistics, categorizing students' responses into three performance ranges: High (76-100), Middle (61-75), and Low (0-60). Concurrently, the qualitative data from interviews and observations were analyzed using an interactive model (adapted from Sugiyono, 2013), which encompasses three continuous stages: data reduction (filtering and simplifying raw interview transcripts and field notes), data display (organizing information into narrative text and analytical tables), and conclusion drawing/verification (synthesizing the integrated findings to formulate a cohesive understanding of technology's impact on learning outcomes).

FINDING AND DISCUSSION

Findings

This section presents the empirical findings derived from the data collection process, which encompasses the student questionnaires, in-depth teacher interviews, and direct classroom observations. To comprehensively address the research objectives, the results are synthesized and presented under two primary themes. The first theme explores the direct impact of technological integration on the seventh-grade students' English learning outcomes and their overall pedagogical perceptions. The second theme examines the practical realities of this integration, detailing the instructional strategies employed by the teacher, the readiness of school facilities, and the inherent challenges encountered during the implementation process.

The Impact of Technology on Students' English Learning Outcomes

To evaluate the impact of technology on students' learning outcomes, data were gathered through questionnaires and direct classroom observations. The quantitative results from the questionnaire involving 15 seventh-grade students demonstrated a generally positive reception toward technology integration. The data revealed that 1 student (6.7%) achieved a high-range score (76–100), a significant majority of 11 students (73.3%) fell into the middle-range category (61–75), and 3 students (20%) were in the low-range category (0–60). This indicates that while technology serves as a beneficial platform for English learning, its maximum potential has yet to be fully realized for all students.

Qualitatively, the majority of the students reported that digital tools significantly aided their comprehension of the material, stimulated their learning interest, and fostered independent study habits outside of school hours. These perceptions were corroborated during classroom observations. When the teacher

utilized a projector to display an animated YouTube video, the students exhibited active engagement; they effectively responded to the teacher's comprehension questions and successfully completed a follow-up task requiring them to retell the story in writing.

Teachers' Strategies, Facilities, and Challenges in Technology Integration

Interviews with the English teacher and further classroom observations highlighted the practical implementation and ongoing challenges of educational technology. The school provides adequate technological facilities, including Wi-Fi access, projectors, and an official E-learning Madrasah platform. The teacher confirmed that digital platforms, such as YouTube for material enrichment, E-learning for formal activities, and the Madrasah Digital Report Card (RDM) for evaluation, serve as an effective support system that has motivated students to engage with varied and challenging materials.

Despite these advantages, several significant barriers were identified. Technical issues, such as internet network disruptions, unexpected power outages, and occasional hardware malfunctions (e.g., audio issues during video playback), frequently disrupt the learning flow. To mitigate these infrastructural challenges, the teacher proactively prepares printed student worksheets (Lembar Kegiatan Peserta Didik or LKPD) as an alternative. Furthermore, the teacher emphasized that the most prominent challenge originating from the students is the distraction caused by social media notifications, which necessitates strict supervision to keep students focused on the learning objectives. Consequently, the teacher advocates for a blended approach, combining traditional teaching methods with technology-based learning to accommodate diverse learning styles effectively

Discussion

The primary objective of this study was to analyze the impact of technology integration on the English learning outcomes of seventh-grade students at MTs Muhammadiyah Al-Haq Palu. The findings comprehensively demonstrate that the utilization of digital platforms positively influences students' motivation, academic engagement, and material comprehension. The active participation observed during audiovisual sessions and the predominance of middle-to-high scores in the student questionnaire support the assertion made by Kozma (2003), who noted that technology transforms the learning experience into a dynamic and interactive environment, thereby improving overall learning outcomes. Furthermore, the students' positive responses align with Mulyadi et al. (2021), stating that technology in language education provides extensive opportunities for students to acquire knowledge and creates a highly enjoyable learning environment.

However, the study also highlights that integrating technology is not without its pedagogical and infrastructural challenges. The students' self-reported difficulties regarding distractions from social media validate the findings of Abidin et al. (2023), who identified smartphone notifications as a major disruptive factor in classroom focus. This phenomenon underscores the necessity of the teacher's role not merely as a facilitator of digital tools but as an active supervisor who guides students in filtering information and maintaining digital discipline.

Additionally, systemic issues such as limited internet connectivity and power outages were identified as significant barriers. These findings corroborate Fu (2013), who argued that the lack of availability of ICT equipment and infrastructural support are primary factors inhibiting effective technology use in education. To overcome this, the teacher's strategy of preparing alternative printed

materials (LKPD) and blending traditional methods with technological tools demonstrates the adaptive thinking necessary in modern pedagogy. This blended strategy supports Handayani's (2023) perspective on the importance of contextual analysis in educational technology, ensuring that digital implementation aligns realistically with the specific infrastructural readiness and unique needs of the educational institution.

In conclusion, while educational technology substantially enriches students' English learning experiences and outcomes, its success is not solely dependent on the presence of the technology itself. Instead, it relies heavily on a synergistic approach involving adequate infrastructure, strategic teacher intervention, and a balanced integration with traditional instructional methods.

CONCLUSION AND SUGGESTION

Conclusion

Based on the findings and discussion, it can be concluded that the integration of technology in English learning at MTs Muhammadiyah Al-Haq Palu has a positive impact on the learning outcomes of seventh-grade students. The utilization of technological platforms, such as E-learning Madrasah, YouTube, projectors, and digital report systems (RDM), enhances students' motivation, interest, and engagement. Students reported that technology helped them better understand English materials, learn independently, and practice their language skills with greater confidence.

Furthermore, data from the teacher interview and classroom observations confirmed that technology serves as an effective support system that promotes active student participation and facilitates better comprehension of the lessons. However, practical challenges remain, including infrastructural issues (e.g., internet instability and power outages) and learning distractions caused by social media. Therefore, while technology significantly contributes to improving learning outcomes, its optimal implementation requires a blended pedagogical approach, active teacher supervision, and adequate infrastructural support

Suggestion

Based on the research findings, several suggestions are proposed to enhance the effectiveness of technology integration in English language learning:

1. For the School: It is suggested that the institution continue to improve its technological infrastructure by ensuring stable internet access and providing backup power sources, such as generators, to minimize disruptions during the learning process.
2. For the Teachers: Teachers are encouraged to integrate technology while balancing it with traditional methods to accommodate various student learning styles. Crucially, teachers must actively supervise and guide students to maintain focus and prevent distractions when using gadgets.
3. For the Students: Students should be continuously motivated to use technology responsibly for educational purposes. This will help improve their self-discipline and maximize the benefits of independent learning opportunities.
4. For Future Researchers: Future studies are encouraged to involve a wider range of digital platforms and different educational settings. This will provide a deeper understanding of the long-term impacts of technology on EFL students' learning outcomes.

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EVALUATING THE DICTOGLOSS TECHNIQUE FOR VOCABULARY MASTERY AMONG LOW-PROFICIENCY EFL LEARNERS

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Abstract

This experimental quantitative research aimed to assess the effectiveness of the Dictogloss technique in improving vocabulary mastery among eighth-grade students at MTs. Al-Khairaat Pandere. Using a one-group pre-test and post-test design, the study involved 30 students who participated in a pre-test, followed by six sessions utilizing the Dictogloss technique, and concluded with a post-test. Data analysis was conducted using statistical methods, including the calculation of mean scores, deviations, and t-test analysis. The results showed a significant improvement in students' vocabulary mastery, with the mean score of the pre-test being 23.53 and the post-test rising to 45.13. The t-test revealed a t-counted value of 8.75, which was significantly higher than the t-table value of 2.045, confirming that the Dictogloss technique was effective in enhancing vocabulary mastery. Based on these findings, it can be concluded that the Dictogloss technique significantly improved the vocabulary mastery of the students at MTs. Al-Khairaat Pandere.

Keywords: Dictogloss technique, vocabulary mastery, junior high school students.

BACKGROUND

Vocabulary mastery constitutes the foundational pillar of language acquisition and communicative competence. In the context of English as a Foreign Language (EFL), possessing a rich and varied vocabulary is a prerequisite for learners to comprehend texts, construct written discourse, and engage in meaningful oral communication (Nation, 2001). While grammatical knowledge dictates how words are structured, it is vocabulary that carries the core meaning of any message. However, mastering and retaining new vocabulary remains one of the most formidable challenges for EFL learners (Schmitt, 2008). Insufficient vocabulary not only impedes students' receptive and productive language skills but also severely undermines their motivation and confidence in language learning.

These challenges are highly prevalent in the Indonesian EFL context, particularly at MTs. Al-Khairaat Pandere. Preliminary observations revealed that eighth-grade students struggle significantly with vocabulary retention and application. This deficiency is largely rooted in traditional, teacher-centered instructional methods. Vocabulary is predominantly taught through rote memorization of decontextualized word lists, leaving students as passive recipients. Furthermore, the lack of interactive learning media and the absence of opportunities to negotiate meaning collaboratively result in a monotonous classroom environment. Consequently, students fail to internalize the vocabulary and are unable to retrieve or apply the words in real-life communicative contexts. To address this pedagogical stagnation, an innovative, interactive, and context-rich instructional technique is urgently required.

One highly promising approach is the Dictogloss technique. Originally designed as a grammar-dictation activity, Dictogloss is a collaborative learning technique where the teacher reads a short text at a normal speed, students take fragmentary notes of key content words, and then work in small groups to reconstruct the text as closely as possible to the original meaning (Jacobs & Small, 2003). This technique shifts the learning paradigm from passive listening to active negotiation of meaning. By forcing students to pool their linguistic resources, Dictogloss creates what Bjork and Kroll (2015) term as desirable difficulties, a cognitive struggle that ultimately leads to deeper processing and more robust long-term memory retention.

Several previous studies have demonstrated the efficacy of the Dictogloss technique in language learning. For instance, Vasiljevic (2010) highlighted its success as an interactive method for teaching listening comprehension, while Wulandari (2019) empirically proved its effectiveness in improving general vocabulary mastery. However, a critical research gap remains in the current literature. The majority of existing studies on Dictogloss have heavily focused on its impact on listening comprehension (Elahifar et al., 2022; Nurdia et al., 2024; Rezaei, 2019) or writing coherence (Al-Obaydi & Al-Mosawi, 2018; Alshireedi & Khairuddin, 2025; Azmoon, 2021; Hassan, 2023), often targeting university students or advanced adult learners. There is a paucity of empirical research investigating the specific impact of Dictogloss on the vocabulary mastery of young, low-proficiency EFL learners, such as junior high school students, within highly under-resourced educational settings. It remains under-explored whether the cognitive demands of reconstructing texts collaboratively are effective for eighth graders who possess extremely limited foundational vocabulary.

To bridge this empirical and pedagogical gap, this research is conducted to apply the Dictogloss technique in a specific, under-researched demographic. Therefore, this study is guided by the following Research Question (RQ): "*Does the implementation of the Dictogloss technique significantly improve the vocabulary mastery of eighth-grade students at MTs. Al-Khairaat Pandere?"*

LITERATURE REVIEW

The Concept of Vocabulary Mastery in EFL

Vocabulary is widely acknowledged as the central prerequisite for language acquisition. While grammatical rules provide the structural framework of a language, vocabulary provides the essential building blocks for conveying meaning. According to Thornbury (2002), without grammar, very little can be conveyed, but without vocabulary, nothing can be conveyed. In the context of English as a Foreign Language (EFL), vocabulary mastery encompasses not merely the superficial memorization of word translations, but a deep cognitive understanding of a word's form, meaning, and contextual usage (Nation, 2001).

Despite its critical importance, vocabulary remains a highly problematic area for EFL learners. Schmitt (2008) argues that instructed second language vocabulary learning often fails because it heavily relies on decontextualized rote memorization. When students are only exposed to isolated word lists, they are deprived of the contextual clues necessary to understand how words function in natural discourse (Harmer, 2001). Consequently, interactive and meaning-focused pedagogical interventions are required to shift vocabulary instruction from passive reception to active production (Richards & Renandya, 2002).

The Dictogloss Technique

Dictogloss is an interactive and collaborative language learning technique

originally designed to integrate listening, speaking, reading, and writing skills. Unlike traditional dictation where the teacher reads slowly and students transcribe exactly what they hear word-for-word, Dictogloss involves a more complex cognitive process. As outlined by Jacobs and Small (2003), the procedure typically consists of four stages: (1) Preparation, where the teacher introduces the topic and pre-teaches difficult vocabulary; (2) Dictation, where the teacher reads a short text at a normal conversational speed while students take fragmentary notes of key content words; (3) Reconstruction, where students work in small collaborative groups to pool their notes and reconstruct their own version of the text; and (4) Analysis and Correction, where students compare their reconstructed texts with the original one to identify linguistic errors.

Vasiljevic (2010) highlights that Dictogloss serves as a highly interactive method that transforms passive listening into an active process of meaning negotiation. By requiring students to reconstruct the text, the technique forces them to apply their existing grammatical and lexical knowledge to fill in the missing gaps from their notes.

Theoretical Framework: Cognitive and Collaborative Benefits

The efficacy of the Dictogloss technique in enhancing vocabulary mastery can be explained through cognitive psychology and socio-cultural learning theories. From a cognitive perspective, the challenge of retrieving words from memory and reconstructing a text creates what Bjork and Kroll (2015) term as desirable difficulties. This concept suggests that when learners engage in cognitively demanding tasks, such as struggling to recall a specific vocabulary word to complete a sentence, it creates stronger and more durable neural connections in the brain, leading to better long-term retention compared to easy, passive reading.

From a collaborative standpoint, Dictogloss heavily promotes peer scaffolding. Jacobs and Small (2003) assert that combining Dictogloss with cooperative learning effectively reduces the anxiety typically associated with foreign language production. During the reconstruction phase, students negotiate meaning, correct each other's lexical choices, and learn new vocabulary from their peers in a supportive, low-affective-filter environment. Previous empirical research, such as the study conducted by Wulandari (2019), confirms that this collaborative text reconstruction significantly improves students' vocabulary mastery by embedding new words within a meaningful, negotiated context.

METHOD OF THE RESEARCH

Research Design

This study employed a pre-experimental quantitative research design, specifically utilizing a one-group pre-test and post-test design. This approach was selected to measure the causal impact of the independent variable (the Dictogloss technique) on the dependent variable (students' vocabulary mastery) by comparing their baseline performance before the intervention with their performance after the intervention.

Participants

The research was conducted at MTs. Al-Khairaat Pandere. The population comprised the eighth-grade students at the school. Employing a total sampling technique, 30 students were selected to participate in this study. This specific demographic was chosen based on preliminary observations indicating their low foundational vocabulary and the urgent need for interactive instructional intervention.

Data Collection Procedure

The data collection process was systematically divided into three main phases. First, a pre-test was administered

prior to any treatment to assess the students' initial vocabulary mastery and establish a baseline score. Second, the treatment phase was conducted over six instructional sessions. During these sessions, the students were taught using the Dictogloss technique, which involved listening to short texts, taking fragmentary notes, and working collaboratively in small groups to reconstruct the original meaning of the texts. Finally, a post-test, identical in format and difficulty to the pre-test, was administered to measure the vocabulary gains achieved following the six-session intervention.

Data Analysis

The data obtained from both the pre-test and post-test were analyzed quantitatively. Initially, the students' raw scores (correct answers) were computed and converted into standard scores on a 0–100 scale to ensure comparability. Descriptive statistics were then applied to calculate the mean scores and the mean deviation between the two tests. To determine whether the improvement in vocabulary mastery was statistically significant, inferential statistics were employed. Specifically, a paired-sample t-test was conducted to compare the pre-test and post-test mean scores. The resulting t-counted value was evaluated against the critical t-table value at a 0.05 level of significance with 29 degrees of freedom (df=N-1) to test the formulated hypothesis.

FINDING AND DISCUSSION

Findings

This chapter presents the statistical analysis of the data collected from the pre-test and post-test. The data are analyzed to determine the effectiveness of the Dictogloss technique in improving students' vocabulary mastery. To ensure clarity and comparability, all raw scores (correct items) obtained by the students were converted into standard scores (on a scale of 100).

Findings

The research results were divided into pre-test result and post-test result, both have different presentations in each test. The explanation of the two tests is discussed below.

Pre-Test Results

The pre-test was administered on September 24, 2024, to the 30 eighth-grade students of MTs. Al-Khairaat Pandere. Based on the test calculation (refer to Table 1), the highest standard score was 38, and the lowest was 6.

Table 1. Students' Pre-Test Standard Scores

No	Student Initial	Standard Score
1	ARH	34
2	AA	24
3	AAI	28
4	AAA	20
5	AF	36
6	AA	32
7	APA	24
8	DRT	38
9	FBG	20
10	FI	18
11	FA	22
12	FN	14
13	GA	12
14	HAM	26
15	HT	12
16	MN	16
17	ML	12
18	MFN	26
19	NA	28
20	NDI	26
21	RFZA	36
22	RDE	6
23	RPA	20
24	RHT	22
25	SSA	32
26	SA	18
27	SA	36
28	SN	22
29	VJ	22
30	WN	24
	Total	$\Sigma X = 706$

The pre-test was administered on to the 30 eighth-grade students of MTs. Al-Khairaat Pandere. Based on the test, the highest standard score was 38, and the lowest was 6. The accumulated standard score for all 30

students was 706. The mean score for the pre-test was calculated as follows:

$$M = \frac{\Sigma X}{N} = \frac{706}{30} = 23.53$$

The pre-test mean score of 23.53 indicates that the students' baseline vocabulary mastery was generally low prior to the intervention.

Post-Test Results

Following the implementation of the Dictogloss technique, the post-test was administered on October 12, 2024. The results (refer to Table 2) showed a marked improvement. The highest standard score achieved was 88, and the lowest was 26.

Table 2. Students' Post-Test Standard Scores

No	Student Initial	Standard Score
1	ARH	68
2	AA	32
3	AAI	72
4	AAA	32
5	AF	80
6	AA	34
7	APA	84
8	DRT	76
9	FBG	32
10	FI	36
11	FA	54
12	FN	56
13	GA	58
14	HAM	58
15	HT	26
16	MN	44
17	ML	60
18	MFN	68
19	NA	36
20	NDI	58
21	RFZA	44
22	RDE	58
23	RPA	32
24	RHT	40
25	SSA	88
26	SA	34
27	SA	46
28	SN	38
29	VJ	38
30	WN	34
	Total	$\Sigma X = 1354$

The accumulated standard score for the post-test was 1,354. The mean score for the post-test was calculated as follows:

$$M = \frac{\Sigma X}{N} = \frac{1354}{30} = 45.13$$

Comparing the pre-test mean (23.53) to the post-test mean (45.13) reveals a substantial increase, indicating a positive impact of the treatment on students' vocabulary mastery.

Data Analysis

To determine whether the improvement from the pre-test to the post-test was statistically significant, a paired-sample t-test was conducted. The calculation was based on the students' standard scores (Y_1 for pre-test and Y_2 for post-test). The deviation (d) and the square of the deviation (d^2) are presented in Table 3 below.

Table 3. The Result of Deviation between Pre-Test and Post-Test Standard Scores

No	Initial	Pre-test (Y1)	Post-Test (Y2)	Deviation (d) (Y2−Y1)	Square Deviation (d^2)
1	ARH	34	68	34	1156
2	AA	24	32	8	64
3	AAI	28	72	44	1936
4	AAA	20	32	12	144
5	AF	36	80	44	1936
6	AA	32	34	2	4
7	APA	24	84	60	3600
8	DRT	38	76	38	1444
9	FBG	20	32	12	144
10	FI	18	36	18	324
11	FA	22	54	32	1024
12	FN	14	56	42	1764
13	GA	12	58	46	2116
14	HAM	26	58	32	1024
15	HT	12	26	14	196
16	MN	16	44	28	784
17	ML	12	60	48	2304
18	MFN	26	68	42	1764
19	NA	28	36	8	64
20	NDI	26	58	32	1024
21	RFZA	36	44	8	64
22	RDE	6	58	52	2704
23	RPA	20	32	12	144
24	RHT	22	40	18	324
25	SSA	32	88	56	3136
26	SA	18	34	16	256
27	SA	36	46	10	100
28	SN	22	38	16	256
29	VJ	22	38	16	256
30	WN	24	34	10	100
Total		$\Sigma Y_1 = 706$	$\Sigma Y_2 = 1354$	$\Sigma d = 810$	$\Sigma d^2 = 30144$

Based on the table, the mean deviation (Md) is calculated as follows:

$$Md = \frac{\Sigma d}{N} = \frac{810}{30} = 27$$

Next, the sum of the squared deviation ($\Sigma x^2 d$) is computed:

$$\Sigma x^2 d = \Sigma d^2 - \frac{(\Sigma d)^2}{N}$$

$$\Sigma x^2 d = 30144 - \frac{(810)^2}{30}$$

$$\Sigma x^2 d = 30144 - \frac{656100}{30}$$

$$\Sigma x^2 d = 30144 - 21870 = 8274$$

Finally, the t-counted value is determined using the statistical t-test formula:

$$t = \frac{Md}{\sqrt{\frac{\Sigma x^2 d}{N(N-1)}}}$$

$$t = \frac{27}{\sqrt{\frac{8274}{30(29)}}}$$

$$t = \frac{27}{\sqrt{\frac{8274}{870}}}$$

$$t = \frac{27}{\sqrt{9.51}}$$

$$t = \frac{27}{3.084}$$

$$t - counted = 8.75$$

Discussion

The statistical analysis reveals that the t-counted value (8.75) is significantly higher than the t-table value (2.045) at a 0.05 level of significance. This empirical evidence firmly demonstrates that the use of the Dictogloss technique yielded a highly significant improvement in the vocabulary mastery of eighth-grade students at MTs. Al-Khairaat Pandere.

The success of this intervention can be explained through several theoretical frameworks. First, Dictogloss shifts the vocabulary learning paradigm from passive memorization to active, meaning-focused negotiation. As Nation (2001) emphasizes, vocabulary is best acquired when learners encounter and use words within a rich, meaningful context rather than in isolated lists. During the Dictogloss procedure, students are compelled to actively listen, take notes, and collaboratively reconstruct the text. This interactive process aligns with Jacobs and Small (2003) and Vasiljevic (2010), who assert that combining dictation with cooperative learning effectively lowers students' anxiety and promotes peer-scaffolding, allowing learners to pool their linguistic resources to retrieve and reconstruct target vocabulary.

From a cognitive psychology perspective, the effectiveness of Dictogloss in this study perfectly illustrates the concept of "desirable difficulties" proposed by Bjork and Kroll (2015). The technique is inherently challenging; it forces students to strain their memory to recall words and grammatically reconstruct sentences based on fragmentary notes. This cognitive struggle creates a deeper, more robust memory trace compared to passive reading, leading to better long-term vocabulary retention. The positive outcome of this cognitive engagement strongly corroborates the empirical findings of Wulandari (2019), who also reported that the Dictogloss technique significantly enhanced students' vocabulary mastery through collaborative reconstruction.

However, a critical examination of the data reveals a nuanced reality. While the statistical improvement is undeniable (a nearly 100% increase from the pre-test), the absolute post-test mean score remains at 45.13 out of 100. This indicates that, despite the significant gains, the students' overall

vocabulary mastery has not yet reached a standard level of proficiency. This phenomenon presents a crucial counter-narrative: while the "desirable difficulty" of Dictogloss (Bjork & Kroll, 2015) triggers cognitive engagement, it may also lead to cognitive overload for learners with severely limited foundational vocabulary. When the baseline vocabulary is too low (as evidenced by the pre-test mean of 23.53), the gap between the students' prior knowledge and the linguistic demands of reconstructing a text might be too wide for peer collaboration alone to bridge completely.

In conclusion, the findings suggest that while Dictogloss is a powerful, theoretically sound, and empirically proven technique for driving vocabulary growth (Vasiljevic, 2010; Wulandari, 2019), it is not a standalone magic bullet. For low-proficiency EFL learners, Dictogloss should ideally be supplemented with explicit, targeted vocabulary pre-teaching to ensure that the cognitive load remains manageable and the difficulties remain truly desirable.

CONCLUSION AND SUGGESTION

Conclusion

Based on the statistical analysis and the theoretical discussion, this study concludes that the implementation of the Dictogloss technique significantly improves the vocabulary mastery of eighth-grade students at MTs. Al-Khairaat Pandere. The empirical data demonstrated a substantial increase in students' performance, with the t-counted value (8.75) significantly exceeding the t-table critical value (2.045), which strictly confirms the acceptance of the alternative hypothesis. The technique effectively transforms passive vocabulary memorization into an active, collaborative, and meaning-focused learning experience.

However, the study also concludes a critical pedagogical caveat: while the Dictogloss technique is highly effective in stimulating vocabulary growth through cognitive engagement and peer scaffolding, it may not be a sufficient standalone solution for learners with a very low baseline proficiency. Given that the final post-test mean score (45.13) remained below the standard mastery threshold, the technique should ideally be strategically combined with explicit vocabulary pre-teaching. This combined approach is necessary to manage the students' cognitive load, prevent overwhelming difficulties, and ultimately maximize long-term vocabulary retention.

Suggestion

Based on the empirical findings and the pedagogical implications discussed, the following recommendations are proposed:

1. For English Teachers: While the Dictogloss technique is highly recommended for fostering collaborative vocabulary building, it should be implemented strategically, particularly for low-proficiency learners. Teachers are strongly advised to incorporate explicit vocabulary pre-teaching or scaffolding sessions prior to the dictation phase. Equipping students with foundational keywords beforehand will reduce cognitive overload and maximize the effectiveness of the text reconstruction process. Additionally, teachers should explore various text genres and vocabulary sets tailored to the students' specific proficiency levels.
2. For Students: Learners are encouraged to maximize their active participation during the collaborative reconstruction phase of the Dictogloss technique. Actively engaging in peer discussions, pooling linguistic resources, and practicing focused listening will significantly aid in internalizing new vocabulary and transferring it into active language use.
3. For Future Researchers: Future studies are encouraged to investigate the long-term retention of vocabulary acquired through the Dictogloss technique. Furthermore, researchers could explore a

comparative experimental design that contrasts the standalone Dictogloss method with a blended approach (Dictogloss paired with explicit vocabulary pre-teaching) across different demographic groups and proficiency levels to determine its most optimal pedagogical application. Future research could also expand the scope to assess the technique's impact on other integrated skills, such as grammar accuracy and writing coherence.

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BEYOND LIBRARY FACILITIES: HOW THE LEARNING ENVIRONMENT SHAPES STUDENTS' READING INTEREST AND LITERACY ENGAGEMENT

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Abstract

This study investigates the impact of the school learning environment on the reading interest of eighth-grade students at SMP Negeri 3 Tolitoli. Employing a descriptive qualitative design, data were triangulated through student questionnaires, direct classroom and library observations, and in-depth teacher interviews. The findings reveal that a supportive learning environment, characterized by comfortable physical spaces, visually engaging materials, active teacher involvement, and positive peer influence, significantly enhances students' reading engagement. However, the study also identifies critical challenges, notably a lack of diverse non-textbook reading materials and a heavy reliance on teacher-assigned tasks rather than intrinsic motivation. The research concludes that while institutional and social support effectively facilitates structured reading habits, targeted infrastructural improvements and motivational strategies are required to foster independent, lifelong literacy.

Keywords: Learning environment, reading interest, junior high school, literacy engagement, qualitative study.

BACKGROUND

Reading interest is a fundamental catalyst for students' academic development and cognitive growth. Students with high reading engagement tend to comprehend subject matters more effectively and achieve superior academic performance (Umamy, 2024). However, cultivating a robust reading habit is a complex process influenced by various external factors, predominantly the learning environment. A conducive learning environment, encompassing physical aspects like library facilities and non-physical aspects such as teacher support, provides vital stimuli that can significantly elevate students' literacy engagement.

Recent studies have underscored the critical role of environmental facilitation in literacy. For instance, Lestari (2024) demonstrated that comprehensive library services and facilities directly correlate with increased reading interest among high school students. Similarly, Alfiah et al. (2025) highlighted those physical interventions, such as establishing literacy corners, effectively strengthen the school's reading culture. While these studies provide valuable insights, a critical research gap remains in the current literature. The majority of existing studies tend to evaluate institutional facilities quantitatively or focus primarily on high school and urban settings. There is a paucity of in-depth qualitative research exploring how the interplay between physical environments (e.g., library conditions) and instructional environments (e.g., teacher strategies and peer influence) specifically shapes the reading interest of junior high school students in developing areas.

These environmental dynamics are particularly evident at SMP Negeri 3 Tolitoli. Preliminary observations indicate

that while the school possesses basic facilities, students' reading interest fluctuates significantly depending on the classroom atmosphere, the availability of engaging books, and the teacher's instructional approach. Therefore, this study aims to fill the empirical gap by qualitatively investigating the multifaceted role of the learning environment in influencing eighth-grade students' reading interest at SMP Negeri 3 Tolitoli.

LITERATURE REVIEW

Conceptualizing Reading Interest and Cognitive Literacy

Reading is not merely a passive process of word recognition, but rather a complex cognitive interaction between the reader and the text (Smith, 2015). In the context of learning, reading comprehension requires students to actively connect their prior knowledge with new information derived from the text (Anderson, 2017; Cain, 2016). This cognitive engagement is significantly influenced by students' reading fluency and speed (Hudson, 2018). Therefore, a love of reading serves as the primary driving force; students with a strong love of reading will more readily and voluntarily process these cognitive complexities, which ultimately underpin their literacy success in school.

Reading is not merely a passive process of recognizing words; it is a complex cognitive interaction in which students actively connect prior knowledge with new information, interpret meaning, and evaluate ideas presented in the text (Smith, 2015). In learning contexts, successful comprehension therefore depends not only on access to texts but also on the reader's fluency, accuracy, automaticity, and appropriate reading pace (Anderson, 2017; Cain, 2016), which reduce the cognitive effort required for word recognition and allow greater attention to meaning (Juanda et al., 2024, p. 416). Reading interest is consequently a crucial motivational foundation for literacy development. Students who are genuinely interested in reading are more likely to read voluntarily, persist when texts become challenging, and engage deeply with their content. Through this sustained cognitive and motivational engagement, they can develop stronger comprehension, vocabulary, and subject-specific knowledge (Hudson, 2018), thereby establishing a foundation for continued academic and literacy success.

The Learning Environment's Ecology in Fostering a Reading Culture

Students' interest in reading does not develop naturally in a vacuum but is heavily dependent on the ecology of their surrounding learning environment. The physical school environment, such as the availability of adequate library facilities and comfortable reading corners, has been shown to correlate directly with increased student literacy participation (Smith et al., 2017). Lestari (2024) emphasizes that the quality of library services and facilities serves as a primary draw capable of significantly stimulating students' interest in reading. Furthermore, specific physical space interventions, such as creating literacy corners within classrooms, can strengthen the school's reading culture by bringing books closer to students in their daily activities (Alfiah et al., 2025).

However, physical facilities alone are not sufficient to sustain reading interest. The non-physical environment, particularly emotional support from teachers and the creation of interactive learning spaces, serves as a crucial catalyst (Johnson & Johnson, 2018). Social interaction with teachers who provide book recommendations and motivate students transforms reading activities from a perceived burden into an enjoyable experience.

The Intersection of Learning Environments, Interest in Reading, and Academic Performance

Cumulatively, a conducive learning environment does more than stimulate students' intrinsic and extrinsic interest in reading; it also strengthens the academic competencies that develop through sustained engagement with texts (Juanda et al., 2024, p. 416). The learning environment functions as the foundation of this process by providing access to literacy resources, supportive instruction, and meaningful opportunities to read. In turn, reading interest serves as the mechanism that transforms these conditions into improved learning outcomes: as students read more frequently and with greater motivation, they are better positioned to expand their vocabulary, deepen comprehension, and strengthen subject-specific knowledge. This relationship is consistent with Umamy's (2024) finding that the school environment positively influences Indonesian-language achievement both directly and indirectly through students' reading interest (Umamy, 2024). Thus, a literacy-rich school environment can generate a reinforcing cycle in which supportive conditions cultivate reading interest, sustained reading develops students' competencies, and improved academic performance further encourages their engagement with learning.

METHOD OF THE RESEARCH

Research Design

This study employed a descriptive qualitative research design to explore the impact of the school environment on students' reading interest in English learning. According to Sugiyono (2016), qualitative research generates descriptive data in the form of written or spoken words and observable behaviors. The variables in this study consist of the learning environment as the independent variable and the students' reading interest as the dependent variable.

Research Setting and Participants

The research was conducted at SMP Negeri 3 Tolitoli, located in Central Sulawesi. The participants included eighth-grade students and an English teacher, selected to provide comprehensive insights into the reading culture and environmental factors within the school.

Data Collection

Data were gathered through methodological triangulation involving questionnaires, interviews, and observations. A 10-item questionnaire was distributed to the students to assess their reading preferences and environmental motivators. Subsequently, in-depth interviews were conducted with the teacher to explore instructional strategies and institutional support. Direct classroom and library observations were also carried out to confirm the behavioral information obtained from the primary data sources.

Data Analysis

The collected data were analyzed using the interactive model, which encompasses three stages:

(1) Data Reduction: The raw data from questionnaires, interview transcripts, and observation notes were filtered and simplified to focus on information relevant to solving the research questions.
(2) Data Display: The reduced data were systematically organized and presented in descriptive narrative text, allowing for a clearer understanding of the emerging patterns regarding students' reading habits.
(3) Conclusion Drawing and Verification: The final step involved synthesizing the displayed data to draw credible conclusions regarding the impact of the learning environment on reading interest, supported by valid evidence gathered from the field.

FINDING AND DISCUSSION

Findings

Through the triangulation of questionnaires, interviews, and direct observations, this study identified several significant environmental and instructional factors that shape students' reading interest at SMP Negeri 3 Tolitoli.

Students' Perspectives on Reading and Environment

Data derived from the student questionnaires (n=20) revealed a generally positive attitude toward reading, driven by both internal motivations and external environmental factors. A significant majority of the respondents perceived reading as a valuable activity for expanding knowledge and insight. Students exhibited higher enthusiasm when the reading materials aligned with their personal interests, such as folklore, novels, comics, and texts discussing local culture, geology, or technology.

The physical learning environment notably influenced their engagement. Students frequently cited a clean, quiet, and comfortable library, alongside visually appealing books with clear illustrations, as key motivators. Furthermore, peer influence played a crucial role; many students reported feeling inspired to read when they observed their friends engaging in reading activities. However, extrinsic motivation, specifically teacher-assigned tasks, remained a primary driver for a large portion of the students. Conversely, a minority of students expressed disinterest, associating reading with boredom or sleepiness, particularly in noisy or non-conducive environments.

Teacher's Strategies and Instructional Environment

Corroborating the students' responses, the teacher interview highlighted that approximately 88% of the students exhibited high reading enthusiasm when provided with heavily illustrated books and clear instructional guidance. The teacher strategically utilizes varied assignments, such as requiring students to find online references at home, match regular and irregular verbs in texts, and retell story contents, to stimulate active reading.

Moreover, the teacher dynamically adapts the learning environment to combat student fatigue. Recognizing that students' enthusiasm wanes during the final periods of the school day, the teacher allows flexible and less monotonous learning arrangements, such as permitting students to study on the floor while maintaining instructional focus.

Discussion

The findings of this study demonstrate that the learning environment at SMP Negeri 3 Tolitoli plays a multifaceted and consequential role in shaping eighth-grade students' interest in reading. The physical environment constitutes a foundational factor: comfortable library spaces and visually engaging books appear to reduce barriers to participation and encourage students to spend more time engaging with texts. This relationship suggests that the availability and quality of learning facilities are not merely supplementary features but essential conditions for sustaining students' reading engagement. These findings align with the assertion by Smith et al. (2017) that appropriate classroom and library conditions are critical to literacy development.

However, physical facilities alone are insufficient to cultivate a sustained reading interest. The study indicates that the instructional environment created by the teacher determines how effectively available resources are transformed into meaningful reading experiences. The teacher's proactive strategies, including the assignment of interactive reading tasks, the provision of guidance, and the adaptation of the physical learning space to reduce student fatigue, function as important external stimuli that encourage participation. By making reading more interactive and responsive to students' needs, these strategies can strengthen

students' positive attitudes toward reading. This finding supports the conclusions of Johnson and Johnson (2018), who emphasized that emotional support and interactive learning spaces make reading more enjoyable and can significantly improve students' reading interest.

Nevertheless, the findings also reveal limitations that prevent the current learning environment from fully developing students' independent reading habits. Although the library provides a comfortable setting, its limited collection of materials beyond standard textbooks restricts students' opportunities to explore diverse topics and genres. Consequently, the teacher must rely on electronic sources when preparing homework assignments, indicating that the physical reading infrastructure does not yet adequately support sustained and varied reading. Moreover, the fact that some students read primarily because of teacher assignments suggests that their engagement remains largely extrinsically motivated. This dependence may encourage compliance with immediate academic requirements but is unlikely, by itself, to produce lifelong reading habits.

Overall, the learning environment at SMP Negeri 3 Tolitoli facilitates reading interest most effectively when physical resources, teacher support, and motivational practices operate together. Comfortable facilities create the necessary conditions for engagement, while teacher-led activities provide direction and encouragement (Alfiah et al., 2025; Lestari, 2024; Umamy, 2024). To convert this structured participation into intrinsic and lifelong interest, the school should expand its collection of age-appropriate and diverse reading materials, maintain engaging reading spaces, and implement strategies that give students greater choice and personal relevance in their reading. Without these complementary improvements, the existing environment may continue to support assigned reading but remain less effective in fostering independent, sustained reading among students.

CONCLUSION AND SUGGESTION

Conclusion

Based on the qualitative findings and discussion, this study concludes that the learning environment at SMP Negeri 3 Tolitoli plays a pivotal and multifaceted role in shaping students' reading interest. The integration of comfortable physical facilities, such as the library, with interactive and visually appealing reading materials provides a strong foundation for literacy engagement. Crucially, the non-physical environment, specifically the teacher's proactive instructional strategies, adaptive classroom management, and positive peer influence, acts as the primary catalyst that transforms passive facilities into active reading habits.

However, the study also concludes a critical pedagogical caveat: the current environmental support is predominantly effective in driving extrinsic, structured reading (e.g., fulfilling teacher assignments) rather than fostering independent, intrinsic motivation. The limited diversity of non-textbook materials in the library remains a significant barrier. Therefore, to maximize students' reading interest, schools must move beyond merely providing basic physical facilities; they must continuously curate diverse reading resources and cultivate a holistic instructional environment that bridges the gap between assigned reading and independent, lifelong literacy.

Suggestion

Based on the empirical findings and the drawn conclusions, the following recommendations are proposed to further optimize the learning environment and foster students' reading interest:

(1) For School Administrators: It is highly recommended to diversify the library's collection by acquiring a wider range of non-textbook reading materials, such as

contemporary fiction, local folklore, and interactive digital texts. Furthermore, the institution should establish structured literacy programs, such as book clubs or reading competitions, to transform the library into a dynamic hub for independent reading rather than merely a quiet study space.

(2) For English Teachers: Teachers are encouraged to continue employing adaptive instructional strategies while actively seeking to transition students from extrinsic compliance (reading solely for assignments) to intrinsic motivation. Integrating digital reading platforms and granting students the autonomy to select reading materials aligned with their personal interests can significantly boost voluntary reading habits.

(3) For Future Researchers: Future studies are encouraged to conduct longitudinal research to observe the long-term impact of enhanced learning environments on students' literacy development. Additionally, conducting comparative studies across schools with differing environmental conditions (e.g., urban versus rural settings), as well as investigating the role of parental and community involvement, would provide a more comprehensive understanding of the external factors shaping students' reading habits.

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USING YOUTUBE AS A LEARNING MEDIA TO IMPROVE THE VOCABULARY OF JUNIOR HIGH SCHOOL STUDENTS

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Abstract

This study aims to investigate the effectiveness of YouTube as a learning media to improve the vocabulary of eighth-grade students at SMP Advent Palu. The research utilized a quantitative approach with a pre-experimental design, specifically a one-group pre-test and post-test design. The instruments applied consisted of vocabulary tests and questionnaires. A pre-test was conducted to assess students' initial vocabulary knowledge, followed by a treatment comprising six sessions that utilized YouTube videos focused on nouns, verbs, and adjectives. After the treatment, a post-test was administered to measure vocabulary improvement. The findings demonstrated that the students' average pre-test score was 40, which significantly improved to 81.3 in the post-test. The statistical analysis showed that the t-counted was higher than the t-table (11.759 > 1.860), indicating a significant improvement in students' vocabulary after using YouTube as a learning media. Furthermore, the questionnaire results revealed that 82% of the participants had a positive perception of using YouTube in vocabulary learning. Therefore, it can be concluded that YouTube is an effective and engaging learning media to improve students' vocabulary.

Keywords: YouTube, Learning Media, Vocabulary Improvement, EFL Learners.

BACKGROUND

The integration of digital technology into language education has significantly transformed how students acquire English as a Foreign Language (EFL), particularly in building vocabulary. Vocabulary refers to the understanding of words and their meanings, which is fundamental for interpreting written and spoken texts. Students with strong vocabulary skills are generally more confident and capable of mastering other language skills, such as listening, speaking, and reading. In the Indonesian context, the Ministry of Education and Culture's (Kemendikbud) plan to implement the Kurikulum Merdeka, requiring English to be taught from primary school starting in 2027/2028, further emphasizes the urgency of developing robust vocabulary skills early on. However, traditional teaching tools like lectures and textbooks often fail to capture students' interest, resulting in boring, less engaging learning environments and limited word retention.

This challenge was highly evident at SMP Advent Palu. Pre-observations revealed that eighth-grade students lacked engaging media for learning English vocabulary and relied predominantly on conventional textbooks. Consequently, their vocabulary remained basic, and many struggled to comprehend word meanings, leading to severe boredom and passivity in the classroom. To address this issue, interactive, technology-based learning media are required to boost interest and comprehension. Fransiska et al. (2024) assert that digital media can significantly support cognitive growth by making lessons more stimulating. In this digital age,

utilizing interactive platforms like videos is crucial, as it allows students to observe vocabulary in real-life contexts, thereby enhancing their overall language skills (Wardaya, 2015).

Among various digital platforms, YouTube has emerged as a highly effective tool for teaching vocabulary, offering a vast array of contextualized content suitable for all English proficiency levels. Dowse (2009, as cited in Abidin et al., 2011) suggests that teachers can utilize YouTube creatively in the classroom to foster interactive learning. Furthermore, Hariyono (2020) notes that integrating YouTube makes learning more engaging, leading to increased student interest and enthusiasm.

Recent studies consistently highlight the positive impact of YouTube on language learning. For instance, Maulana (2023) and Rini et al. (2024) demonstrated that YouTube channels act as a game-changer in significantly boosting students' vocabulary mastery. Furthermore, Masykuri et al. (2025) emphasized its effectiveness in facilitating asynchronous vocabulary acquisition in Indonesian secondary classrooms. However, there remains a need to investigate its specific effectiveness as a targeted intervention for vocabulary building among junior high school students in a localized context, particularly those who have shown a severe lack of motivation due to traditional textbook reliance. To fill this gap, this research was conducted to prove whether the use of YouTube as a learning media can significantly improve the vocabulary of eighth-grade students at SMP Advent Palu. The research question formulated is: *"Can the use of YouTube as a learning media improve the vocabulary of the eighth-grade students at SMP Advent Palu?"*

LITERATURE REVIEW

Vocabulary

Vocabulary is a key aspect of language learning. Richards and Renandya (2002) emphasize that a strong command of vocabulary is essential for accurately understanding and producing language. In line with this, Nation (2001) states that a rich vocabulary enhances communicative competence, while a limited vocabulary can hinder effective communication. Coady and Huckin (1997) also highlight that vocabulary is crucial for mastering the four language skills: listening, speaking, reading, and writing. Without an adequate vocabulary, learners will struggle to develop these four skills.

Integrating technology into vocabulary learning is an effective way to boost student motivation and engagement through more interactive and meaningful experiences. Furthermore, an adequate vocabulary supports social interaction, enabling individuals to express their thoughts and emotions clearly, thereby making communication in daily life far more effective.

YouTube and Its Features

YouTube, founded in 2005 and now owned by Google, has evolved from a simple amateur video platform into a global hub for entertainment, communication, and education. According to Wiryany et al. (2019), YouTube functions as a mass media platform hosting millions of videos, and Juitania and Indrawan (2020) note that the platform is used by more than one billion people worldwide. YouTube offers various supportive features such as a personalized homepage, *playlists*, a comments section, and Premium services, as well as tools like *Shorts*, *live streaming*, and *YouTube Studio* for content creators. The platform also provides safe viewing options such as *YouTube Kids* and *Restricted Mode*, making it a versatile and safe platform for audiences of all ages.

YouTube as a Learning Medium

Learning media play a crucial role in helping students better understand the material. Sudjana and Rivai (2011) emphasize that effective media can enhance students' focus, motivation, and active participation. In the digital age, platforms like YouTube offer a far more engaging alternative to traditional teaching methods. Mujianto (2019) highlights that YouTube can boost student interest through visual content, while Widahyu (2021) adds that video-based learning can enhance focus, enjoyment, and lively interaction in the classroom.

In the context of language learning, particularly vocabulary, YouTube offers a dynamic and interactive environment. Wigati et al. (2018) state that this platform creates a more engaging experience for both teachers and students, whether used online or in person. Its multimedia elements help make language learning more visual, accessible, and adaptive. Other benefits of YouTube as a learning tool include its widespread availability, ease of access, and abundance of varied educational content. Its interactive features encourage communication and feedback, while its free nature provides a highly cost-effective option for supporting modern education.

YouTube's Benefits for Vocabulary Learning and Teaching Steps

YouTube offers significant advantages for developing students' vocabulary mastery. By integrating visual and auditory input, the platform reinforces word retention through contextual cues such as conversations, images, gestures, and sound effects. Evidence from studies involving secondary-school students indicates that YouTube-based instruction can improve vocabulary achievement and produce significantly higher posttest results, while also generating positive learner responses (Maulana, 2023; Rini et al., 2024). In addition, YouTube provides diverse materials, ranging from formal educational videos to informal everyday communication, allowing students to encounter vocabulary in authentic and meaningful contexts (Masykuri et al., 2025). This exposure helps learners understand not only the meanings of new words but also their pronunciation, collocations, and appropriate use. Furthermore, videos such as vlogs and interviews promote active and self-directed learning by presenting real-world communication. Consequently, YouTube can extend vocabulary learning beyond memorization, prepare students to use new words in classroom activities, and make the learning process more engaging and relevant.

The process of teaching vocabulary through YouTube follows several structured steps designed to maximize student engagement and understanding. First, the teacher selects a relevant topic and chooses appropriate YouTube videos. Students then watch the videos carefully and record any unfamiliar vocabulary they encounter. Afterward, they share their findings with the class, while the teacher provides clarification and expands on the material. To reinforce learning, students work collaboratively to create example sentences and present them to the class. The lesson also includes pronunciation practice before concluding with a reflection and a brief introduction to the topic of the next class.

METHOD OF THE RESEARCH

This study employed a quantitative approach using a pre-experimental design of the one-group pre-test and post-test type (Sugiyono, 2017). This design was applied to assess students' vocabulary skills before the intervention (pre-test), provide the treatment using YouTube as a medium, and measure their improvement at the end (post-test).

The population in this study comprised all eighth-grade students at SMP Advent Palu, totaling nine (9) students.

Given the small population size, the researcher employed a total sampling technique, in which all students were included as the study sample. Due to the very limited sample size (N=9), the inferential statistical analysis (t-test) used in this study serves as a preliminary evaluation, the results of which are highly contextual and specific to the population at that school.

Data collection was conducted through instrument triangulation, namely, tests, questionnaires, and documentation, to ensure the accuracy of the results (Arikunto, 2010). The pre-test and post-test instruments each consisted of 30 items designed to specifically measure vocabulary proficiency. The treatment phase was conducted in 80-minute sessions consisting of structured activities. During these sessions, students watched educational videos, took notes on new vocabulary, worked collaboratively in groups, and completed worksheets to reinforce vocabulary retention.

After the treatment phase concluded, a post-test equivalent to the pre-test was administered to evaluate the impact of using YouTube. A questionnaire was then distributed to gather feedback regarding students' perceptions of the method. Documentation throughout the learning process was used to support the validity of the study. This combination of instruments yielded comprehensive quantitative and qualitative data to thoroughly evaluate the effectiveness of the YouTube platform.

FINDING AND DISCUSSION

Findings

Vocabulary Tests Result (Pretest and Posttest)

This study began with a *pre-test* to measure the basic vocabulary skills of the nine students prior to the intervention. The results of the pre-test can be seen in the following table:

Table 1. The Students' Scores in Pre-Test

No	Students Initial	Multiple Choice	Complete Sentences	Obtained Scores	Maximum Scores
1	MC	55	40	95	47.5
2	AL	25	50	75	37.5
3	SN	30	50	80	40.0
4	KN	35	70	105	52.5
5	JR	30	30	60	30.0
6	AS	30	70	100	50.0
7	JN	10	70	80	40.0
8	FI	20	10	30	150.
9	LA	25	70	95	47.5
	Total	260	460	720	360

The researcher calculated the students' average pre-test score by totaling all individual scores and dividing by the number of students, following the given procedure. The result is presented below:

$$M = \frac{\sum x}{N}$$

$$M = \frac{360}{9}$$

$$M = 40$$

The results showed that the students' *mean pre-test* score was 40. This figure indicates that the students' vocabulary proficiency was still at a basic level and considered low before the integration of YouTube as a teaching medium.

After six treatment sessions using YouTube (focusing on nouns, verbs, and adjectives), the researcher administered a *post-test*. The results of the post-test were used to determine whether YouTube can be used effectively as a learning media to improve students' vocabulary. The score is shown in the following table.

Table 2. The Students' Scores in Post-Test

No	Students Initial	Multiple Choice	Complete Sentences	Obtained Scores	Maximum Scores
1	MC	95	90	185	92.5
2	AL	85	70	155	77.5
3	SN	75	70	145	72.5
4	KN	95	100	195	97.5
5	JR	80	70	150	75.0
6	AS	90	60	150	75.0
7	JN	90	100	190	95.0
8	FI	80	60	140	70.0
9	LA	85	70	155	77.5
	Total	775	690	1.465	732.5

The researcher also calculated the students' average post-test score using the same formula as for the pre-test. The results are presented as follow.

$$M = \frac{\sum x}{N}$$
$$M = \frac{732{,}5}{9}$$
$$M = 81.3$$

The data showed a dramatic improvement, with the students' total accumulated score reaching 1,465 and the average *post-test* score jumping to 81.3. This comparison reveals an increase of more than 100% compared to the initial score.

Data Analysis and Hypothesis Testing

To determine whether the increase in scores from 40 to 81.3 is statistically significant, the researcher calculated the deviation (difference) between the *post-test* and *pre-test* scores. The following table shows the deviation and squared deviation calculation.

Table 3. Deviation Score of Pre-test and Post-test

No	Students Initial	Post-test	Pre-test	(d)	(d2)
1	MC	92.5	47.5	45.0	2,025
2	AL	77.5	37.5	40.0	1,600
3	SN	72.5	40.0	32.5	1,056
4	KN	97.5	52.5	45.0	2,025
5	JR	75.0	30.0	45.0	2,025
6	AS	75.0	50.0	25.0	625
7	JN	95.0	40.0	55.0	3,025
8	FI	70.0	15.0	55.0	3,025
9	LA	77.5	47.5	30.0	900
	Total	732.5	360	372.5	16,306

The researcher subsequently calculated the mean deviation of the pre-test and post-test scores. The calculation is shown below.

$$MD = \frac{\sum d}{N}$$
$$MD = \frac{372.5}{9}$$
$$MD = 41.3$$

The researcher slaso calculated the squared deviation, as shown below.

$$\Sigma x^2 d = \Sigma d^2 - \frac{(\Sigma d)^2}{n}$$
$$= 16{,}306 - \frac{(372.5)^2}{9}$$
$$= 16{,}306 - \frac{138{,}756}{9}$$
$$= 16{,}306 - 15{,}417$$
$$= 889$$

The results of the calculation showed a *Mean Deviation* (MD) of 41.3, with a *Sum of Squares of Deviations* of 889. Based on these deviation data, hypothesis testing was conducted using a *t-test*. The statistical calculation yielded to find a t-counted value.

$$t = \frac{MD}{\sqrt{\frac{\Sigma x^2 d}{n\,(n-1)}}}$$
$$t = \frac{41.3}{\sqrt{\frac{889}{9\,(9-1)}}}$$
$$t = \frac{41.3}{\sqrt{\frac{889}{72}}}$$
$$t = \frac{41.3}{\sqrt{12.34}}$$
$$t = \frac{41.3}{3.512}$$
$$t = 11.759$$

As a result, it is found 11.759 of t-counted value. This value was then compared to the t-table value at a significance level of 0.05 using a one-tailed test with a *degree of freedom* (df) of 8 (n-1 = 9-1). The t-table value obtained was 1.860.

Since the calculated t-value (11.759) far exceeds the table t-value (1.860), the research hypothesis is accepted. This provides strong statistical evidence that the use of YouTube as a learning medium significantly improves the vocabulary mastery of eighth-grade students at SMP Advent Palu.

Student Perceptions (*Questionnaire Findings*)

In addition to objective test data, a 14-item questionnaire was distributed to gauge students' subjective perceptions of this method. The results were presented in the table below:

Table 4. Students' Perceptions on Using YouTube for Vocabulary Learning

No	Questionnaire Items	Options	Frequency	Percentage
1	YouTube is an effective and interactive media for learning English.	Agree	9	100%
		Disagree	0	0%
2	I am more interested in learning English vocabulary through YouTube compared to using textbooks.	Agree	9	100%
		Disagree	0	0%
3	Learning videos on YouTube help me understand English vocabulary better.	Agree	9	100%
		Disagree	0	0%
4	I prefer learning in video format rather than just listening or reading.	Agree	8	90%
		Disagree	1	10%
5	It is easier for me to remember new vocabulary after watching it on YouTube.	Agree	7	80%
		Disagree	2	20%
6	I have difficulty understanding the accents or pronunciation of words in YouTube videos.	Agree	3	30%
		Disagree	6	70%
7	I often find new words when watching learning videos on YouTube.	Agree	8	90%
		Disagree	1	10%
8	The provided YouTube videos help me understand the meaning of new vocabulary in various contexts.	Agree	8	90%
		Disagree	1	10%
9	I feel there is an improvement in my vocabulary after learning using YouTube.	Agree	8	90%
		Disagree	1	10%
10	YouTube helps me know the correct pronunciation of words.	Agree	7	80%
		Disagree	2	20%
11	I often take notes on new vocabulary from YouTube videos to study later.	Agree	6	70%
		Disagree	3	30%
12	I have trouble focusing on learning if there is no guidance from the teacher while watching YouTube.	Agree	3	30%
		Disagree	6	70%
13	The discussion session after watching YouTube videos helps me understand vocabulary better.	Agree	9	100%
		Disagree	0	0%
14	I feel learning through YouTube is more flexible because I can replay the videos anytime.	Agree	9	100%
		Disagree	0	0%

The results were very positive: 100% of students agreed that YouTube is an interactive and effective medium that makes learning more flexible compared to printed textbooks. Furthermore, 90% of students felt that the videos helped them understand the meanings of vocabulary words in various real-life contexts, and 80% of students reported that they found it easier to remember new vocabulary after seeing its visual and audio representations on YouTube.

Overall, despite some minor challenges, with 30% of students admitting they had difficulty understanding native speakers' accents and another 30% finding it hard to focus without teacher guidance, an average of 82% of students held a very positive perception of YouTube's usefulness in language learning.

Discussion

The findings of this study convincingly answer the research questions and confirm the effectiveness of integrating digital video platforms into English as a Foreign Language (EFL) classroom. The

very sharp increase in the average score (from 40 to 81.3) demonstrates that the use of YouTube successfully alleviated student boredom, which had previously resulted from reliance on conventional textbooks. This achievement aligns with the theories of Nation (2001) and Richards and Renandya (2002), who assert that vocabulary acquisition cannot occur optimally without a motivating and interactive learning environment.

The success of this score improvement is directly proportional to the questionnaire results, in which 100% of students agreed that YouTube is an interactive and enjoyable medium. These results empirically validate the theory proposed by Sudjana and Rivai (2011), which states that selecting the appropriate learning media will significantly enhance students' focus, motivation, and active participation. Furthermore, the fact that 80% of students found it easier to remember new vocabulary after seeing its visual and audio representations on YouTube is highly consistent with the findings of Fransiska et al. (2024). They state that digital media greatly supports cognitive development because it stimulates the brain through multisensory (audio-visual) input.

More specifically regarding the use of video platforms, the findings of this study confirm the results of previous studies by Hariyono (2020) and Mujianto (2019), which concluded that YouTube is significantly capable of increasing students' enthusiasm for learning through its wealth of visual content. The high percentage of students (90%) who felt helped in understanding the meaning of words in various real-life contexts also reinforces Wardaya's (2015) argument. Wardaya (2015) emphasizes that videos provide *contextual cues*, such as facial expressions, intonation, and situational settings, that printed textbooks cannot offer, thereby making it easier for vocabulary to be stored in long-term memory.

Nevertheless, the questionnaire findings in this study also highlight a critical challenge: 30% of students reported difficulty understanding the accent of a *native speaker*, and another 30% found it hard to stay focused without guidance from a teacher. This fact raises an important pedagogical implication: even a digital platform as powerful as YouTube cannot stand alone as a "replacement" for a teacher. This medium achieves its peak effectiveness (as evidenced by a t-score of 11.759) precisely because it is used as a tool accompanied by structured guidance, observation instructions, collaborative discussions, and clarifications of meaning provided by the teacher. This is fully in line with the view of Dowse (2009, in Abidin et al., 2011), who emphasizes that the effectiveness of YouTube depends on the teacher's creativity and guidance in managing its use in the classroom.

CONCLUSION AND SUGGESTION

Conclusion

Based on the statistical analysis and the discussion, this study concludes that using YouTube as a learning media significantly improves the vocabulary of eighth-grade students at SMP Advent Palu. The effectiveness of this platform is evidenced by the substantial increase in the students' average scores, which rose from 40 in the pre-test to 81.3 in the post-test. Furthermore, the statistical analysis confirms this significant impact, with the t-counted value (11.759) far exceeding the t-table value (1.860). Beyond the quantitative data, the questionnaire results revealed that 82% of the students positively perceived YouTube as an engaging and interactive tool that helps them understand and retain new vocabulary in various contexts. However, this study also highlights a critical pedagogical note: YouTube cannot function as a standalone replacement for teachers. The presence of a teacher remains essential

to guide the learning process, maintain students' focus, and bridge comprehension gaps, particularly concerning native English accents.

Suggestion

Based on the conclusions drawn, the following recommendations are proposed:

(1) For English Teachers: It is highly recommended to integrate YouTube videos as supplementary media in vocabulary learning to create an interactive classroom environment. However, teachers must provide structured guidance, such as pre-teaching difficult words and leading post-viewing collaborative discussions, to help students overcome challenges with native accents and maintain focus.

(2) For Students: Students should utilize YouTube not only as an entertainment platform but also as an independent learning tool. They are encouraged to re-watch educational videos, utilize English subtitles, and take notes on new vocabulary to familiarize themselves with native pronunciation and contextual usage.

(3) For Future Researchers: Considering that this study was conducted with a very limited sample size (9 students), future researchers are strongly encouraged to replicate this study using a larger population and a control group to strengthen the statistical validity. Furthermore, future studies could expand the scope by investigating the impact of YouTube on other language skills, such as speaking or listening comprehension.

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ENHANCING STUDENTS' PROCEDURE TEXT WRITING SKILLS THROUGH THE MIND MAPPING TECHNIQUE: A QUASI-EXPERIMENTAL STUDY

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Abstract

This research aimed to investigate the effectiveness of the mind mapping technique in improving the procedure text writing skills of twelfth-grade students at SMA Negeri 1 Dondo. The study employed a quantitative quasi-experimental design, involving an experimental group and a control group selected from the MIA classes. Data were collected through pre-tests and post-tests to measure students' writing proficiency in aspects such as organization, vocabulary, grammar, and mechanics. The findings demonstrated a significant improvement in the experimental group following the mind mapping treatment. Statistical analysis revealed that the t-counted value (5.490) was significantly higher than the t-table value (1.705) at the prescribed level of significance. This confirms that the mind mapping technique effectively helps students associate ideas, think creatively, and systematically organize their sentences, thereby overcoming the challenges of monotonous learning. In conclusion, the mind mapping technique is a highly effective instructional medium for teaching procedure text writing.

Keywords**:** Mind mapping technique, writing skills, procedure text, quasi-experimental research, EFL learners.

BACKGROUND

Writing is widely recognized as one of the most fundamental yet challenging language skills to master. As a medium of communication, writing requires learners not only to generate ideas but also to accurately translate them into written form so that the intended message is comprehensively understood by the audience (Peha, 2010). In the context of English as a Foreign Language (EFL), writing encourages students to focus on accurate language usage and structural coherence (Harmer, 2004). Based on the 2013 Curriculum for Senior High Schools in Indonesia, students are required to master various text genres, one of the most crucial being the procedure text. The communicative purpose of a procedure text is to systematically describe how something is made or accomplished through a sequence of logical steps, demanding a firm grasp of generic structures (goals, materials, steps) and specific linguistic features.

Despite its importance, mastering procedure text writing remains a formidable obstacle for many students. Preliminary interviews conducted at SMA Negeri 1 Dondo revealed that twelfth-grade students repeatedly face difficulties in constructing cohesive procedure texts. The primary issues include an inability to write complete generic structures, inappropriate use of transitional conjunctions and adverbs, and a severe lack of vocabulary. These challenges are often exacerbated by conventional teaching methods that provide minimal opportunities for students to visually organize their thoughts before drafting their texts, leading to monotonous learning experiences and writing blocks.

To address these pedagogical issues, the implementation of the mind mapping technique offers a highly promising solution. Developed by Tony Buzan (1974), mind mapping is a visual outlining tool that sequences keywords into branches, enabling learners to associate ideas, think creatively, and establish logical connections between sentences. By mapping out their thoughts graphically, students can quickly identify the structure of a subject and seamlessly piece together unprocessed facts (Buzan, 2007).

The efficacy of mind mapping in writing instruction has been documented in several previous studies. For instance, Kusumayanthi and Malik (2022) and Mantra et al. (2021) demonstrated that mind mapping significantly improved students' descriptive writing skills and overall classroom engagement. Similarly, Simanjuntak et al. (2020) found that visual mapping strategies effectively elevated students' narrative writing achievements and lowered affective filters during the learning process. However, a distinct research gap remains. The majority of previous studies have predominantly focused on junior high school demographics, utilized Classroom Action Research designs, or centered on descriptive and narrative texts. There is a scarcity of empirical research utilizing a quasi-experimental design to explicitly measure the impact of mind mapping on the procedure text writing skills of senior high school students, particularly within science-tracked (MIA) classrooms.

To bridge this empirical gap, this research applies the mind mapping technique to a specific, under-researched demographic. Therefore, this study aims to investigate whether the use of the mind mapping technique significantly improves the procedure text writing skills of twelfth-grade students at SMA Negeri 1 Dondo.

LITERATURE REVIEW

Conceptualizing Writing Skills in the Context of EFL

Writing is widely recognized as one of the most complex language skills, as it requires a systematic cognitive process to encode messages into written form (Harmer, 2004). Unlike spoken language, which is often supported by visual context and gestures, written language requires writers to construct linguistic structures independently and accurately. According to Peha (2010), writing is essentially the process of communicating ideas with a specific purpose and directed at a particular audience. Therefore, the success of a written piece depends heavily on the extent to which readers can understand the ideas being conveyed. In the context of *English as a Foreign Language* (EFL) instruction, writing compels students to actively consider the use of accurate grammar, select appropriate vocabulary, and organize their train of thought coherently (Harmer, 2004).

Structure and Communicative Function of Procedural Texts

At the high school level, one of the essential text genres that students must master is the procedural text (*procedure text*). Procedural texts are fundamentally designed to guide readers on how to perform, create, or operate something through a series of logically organized steps (Anderson & Anderson, 1997). Structurally, a good procedural text must include three main generic structures: (1) *Goals/Aim* (the ultimate goal of the activity), (2) *Materials/Tools* (the materials or tools required), and (3) *Steps* (a chronological sequence of steps to achieve the goal) (Anderson & Anderson, 1997). Linguistically, composing this type of text requires students to master the use of imperative sentences, *temporal conjunctions*, and technical vocabulary relevant to the topic at hand. It is precisely these limitations in understanding structure

and vocabulary that often cause writing difficulties for students.

Mind Mapping as a Visual Cognitive Tool

To overcome writer's block and disorganized writing structure, visual cognitive approaches such as *mind mapping* are essential. First developed by cognitive psychologist Tony Buzan (1974), *mind mapping* is a technique for mapping information spatially and non-linearly that aligns with how the human brain naturally processes information. Buzan (2007) explains that through *mind mapping*, students can use a blank sheet of paper to draw the main idea in the center, then draw conceptual branches (containing keywords) in all directions. When teaching procedural texts, these visual branches greatly help students group materials and arrange chronological steps visually before they begin to assemble them into complete sentences. This technique effectively stimulates imagination, facilitates the association of ideas, and prevents *cognitive overload* during the sentence *drafting* process.

Synthesis of Previous Research and *Research* Position

Empirical exploration of the effectiveness of the *mind mapping* technique in writing instruction has been the primary focus of various studies from 2020 to 2023. A number of studies have confirmed that this technique is highly effective in addressing students' difficulties in organizing ideas in descriptive texts. Kusumayanthi and Malik (2022), through their descriptive qualitative study, found that the use of images, colors, and branches in *mind mapping* motivates vocational high school students to organize ideas for descriptive texts in a systematic and enjoyable way. These findings align with the Classroom Action Research (CAR) conducted by Mantra et al. (2021), which concluded that the mind mapping strategy successfully transformed monotonous writing instruction into an interactive process, thereby significantly boosting EFL students' ability to write descriptive texts.

In addition to descriptive texts, the flexibility of the *mind mapping* method has also proven effective when applied to various text genres and combined with other media. In the context of news writing, Suwarti et al. (2020) demonstrated through a classroom action research study that integrating the *mind mapping* method with video media helped junior high school students more easily identify the elements of a news story. Furthermore, Nugroho et al. (2023) reported that *mind mapping* also successfully improved students' skills in composing explanatory texts by mapping the coherence of ideas and the cause-and-effect relationships of phenomena in a structured manner. Another innovation was carried out by Sairo et al. (2021), who used *digital mind mapping*; the use of software proved practical in helping students overcome confusion when beginning to write and reducing the problem of limited vocabulary. In the experimental realm, Simanjuntak et al. (2020) quantitatively demonstrated that this technique has a significant positive effect on 11th-grade students' skills in writing narrative texts compared to conventional methods.

Although the recent literature cited above has comprehensively confirmed the advantages of *mind mapping*, there is a crucial research *gap*. *First*, the majority of recent studies are still heavily dominated by Classroom Action Research (CAR) designs (Mantra et al., 2021; Nugroho et al., 2023; Sairo et al., 2021; Suwarti et al., 2020) or descriptive qualitative studies (Kusumayanthi & Malik, 2022). *Second*, the focus on text genres generally revolves around descriptive, narrative, news, or explanatory texts.

To date, it remains extremely rare to find studies that employ a quasi-experimental design to precisely test the effectiveness of *mind mapping* specifically on procedural texts (*procedure text*), particularly among the demographic of

twelfth-grade students in the science track (MIA). Procedural texts require strict chronological sequencing and the precise use of temporal conjunctions, for which visual mapping is theoretically ideal for outlining these *steps*. Therefore, this study aims to address this empirical gap by evaluating the effectiveness of the *mind mapping* technique on procedural text writing skills through a quasi-experimental approach at SMA Negeri 1 Dondo.

METHOD OF THE RESEARCH

Research Design

This study employed a quantitative approach with a quasi-experimental pre-test and post-test control group design. This design was selected to investigate the causal effect of the independent variable (the mind mapping technique) on the dependent variable (students' procedure text writing skills). Two groups were involved in this study: an experimental group that received writing instruction using the mind mapping technique, and a control group that was taught using conventional teaching methods.

Population and Sample

The research was conducted at SMA Negeri 1 Dondo. The population comprised 80 twelfth-grade students enrolled in the Science/Mathematics (MIA) track, divided into two classes (MIA 1 and MIA 2). To align with the intensive writing evaluation process and ensure statistical reliability, a sample of 28 students was drawn from the population. The sample was divided equally, assigning 14 students to the experimental group and 14 students to the control group.

Research Instrument

The primary instrument used for data collection was a written test, administered both as a pre-test and a post-test. The students were instructed to compose a procedure text based on predetermined topics (e.g., how to make specific foods or beverages). To ensure objective evaluation, the students' writing products were assessed using an analytical scoring rubric adapted from Weigle (2002). The rubric specifically measures four writing components: Organization (overall shape and clear internal pattern), Vocabulary (appropriate lexical choices), Grammar (accuracy of language structure), and Mechanics (punctuation, capitalization, and spelling).

Data Collection Procedure

The data collection was systematically carried out in three stages. First, a pre-test was administered to both groups to measure the students' baseline writing proficiency before any intervention. Second, the treatment was conducted over six meetings. In the experimental group, students were taught how to construct procedure texts (covering topics such as making juices, traditional foods, and healthy meals) using Tony Buzan's (1974) mind mapping technique. During these sessions, students were guided to use blank paper and colored pens to draw a central image representing the main topic, and then connect curved branches representing sub-topics (materials and steps) using specific keywords and symbols. Meanwhile, the control group received standard, non-visual writing instruction. Finally, a post-test, identical in format to the pre-test, was administered to both groups to evaluate their writing skill improvement.

Data Analysis Technique

The data obtained from the pre-test and post-test were analyzed quantitatively using descriptive and inferential statistics. Initially, individual standard scores were calculated based on the four components of the writing rubric. Descriptive statistics were then used to determine the mean scores and the sum of squared deviations for both the experimental and control groups. To test the research hypothesis and determine whether the improvement in the experimental group was statistically significant compared to the control group, an independent sample t-test

was performed. The resulting t-counted value was compared against the critical t-table value at a 0.05 level of significance to draw the final conclusion

FINDING AND DISCUSSION

Findings

The data for this research were collected quantitatively through a pre-test and a post-test administered to both the experimental and control groups. The tests measured the students' writing proficiency in composing procedure texts before and after the implementation of the mind mapping treatment.

Baseline Scores (Pre-Test)

Before the treatment, a pre-test was administered to evaluate the students' baseline writing skills. In the control group, the highest score achieved was 87.00, while the lowest score was 77.30. The accumulated score for the 14 students in the control group was 1,146, resulting in a pre-test mean score of 81.90. This indicated that while students possessed a basic understanding of English, their procedural writing skills required further enhancement.

Post-Test Results

Following the instructional period, a post-test was administered. The experimental group, which was taught using the mind mapping technique, achieved a post-test mean score of 92.00. In contrast, the control group, which received conventional instruction, obtained a total accumulated score of 1,220.6. The highest post-test score in the control group was 92.30, and the lowest was 82.20, resulting in a post-test mean score of 87.20. A comparison of the means clearly illustrates that the experimental group (92.00) outperformed the control group (87.20).

Hypothesis Testing

To determine the statistical significance of the improvement, an independent t-test was conducted. The calculation revealed that the t-counted value was 5.490. This value was then compared to the t-table value at a 0.05 level of significance, which was 1.705. Since the t-counted value (5.490) was significantly higher than the t-table value (1.705), the alternative hypothesis was accepted. This statistically confirms that the mind mapping technique significantly improved the students' procedure text writing skills**.**

Discussion

The statistical findings firmly establish that the integration of the mind mapping technique yields a highly significant improvement in the procedure text writing skills of twelfth-grade students at SMA Negeri 1 Dondo. The experimental group's superior post-test mean score (92.00) compared to the control group (87.20) provides robust empirical evidence that visual outlining tools are more effective than conventional, text-heavy instructional methods.

The success of this intervention can be explained through the cognitive framework proposed by Tony Buzan (1974). Mind mapping aligns with the brain's natural tendency to associate information spatially rather than linearly. In writing a procedure text, students are required to systematically present materials and chronological steps. By using central images, branches, and keywords, the students in the experimental group were able to visually map out the ingredients and the sequential actions before drafting their paragraphs. This visual scaffolding effectively prevented cognitive overload, allowing students to focus on grammatical accuracy and mechanical precision during the actual writing phase.

Furthermore, these findings strongly corroborate recent empirical studies in EFL writing instruction. The significant improvement observed aligns with the

findings of Nugroho et al. (2023), who emphasized that graphic representation helps learners map logical relationships and chronological events in structured texts. Additionally, the heightened student engagement observed during the treatment reflects the conclusions drawn by Mantra et al. (2021) and Simanjuntak et al. (2020), which state that visual mapping strategies successfully transform monotonous learning, reduce writing anxiety, and foster spontaneous idea generation.

Unlike the control group, where students often experienced writer's block due to the monotonous nature of conventional drafting, the experimental group utilized the mind mapping technique to seamlessly transition from abstract ideas to well-structured procedure texts. Ultimately, this study successfully addresses the existing research gap by proving that manual mind mapping is not only effective for descriptive texts in junior high schools, but is also a highly potent cognitive tool for mastering complex procedural writing among senior high school students in science-tracked classrooms.

CONCLUSION AND SUGGESTION

Conclusion

Based on the statistical analysis and the findings of this study, it is concluded that the implementation of the mind mapping technique significantly improves the procedure text writing skills of twelfth-grade students at SMA Negeri 1 Dondo. The empirical data demonstrated a substantial increase in the experimental group's writing proficiency, with the t-counted value (5.490) significantly exceeding the t-table critical value (1.705). This strictly confirms the acceptance of the alternative hypothesis. The mind mapping technique serves as an effective cognitive tool that assists students in visually associating ideas, structuring chronological steps, and reducing cognitive overload prior to drafting. Consequently, students are able to produce procedure texts with better organization, more appropriate vocabulary, and accurate grammatical mechanics.

Suggestion

Based on the empirical findings and the pedagogical implications discussed, the following recommendations are proposed:

(1) For English Teachers**:** Teachers are strongly encouraged to integrate the mind mapping technique as an interactive visual aid in teaching writing. Utilizing this technique helps to attract students' motivation, reduce boredom from monotonous learning, and provide a clear scaffold for students to organize their ideas before drafting complex texts.

(2) For Students**:** Students are expected to actively engage in the pre-writing stage by utilizing mind maps to explore their ideas. By mapping out their thoughts graphically, students can boost their confidence in writing, easily recall necessary vocabulary, and systematically organize the generic structures of a procedure text.

For Future Researchers**:** The results of this study can be used as empirical baseline information for implementing mind mapping in writing classrooms. Future researchers are encouraged to explore the effectiveness of this technique across different text genres, larger sample sizes, or by integrating digital mind mapping software to further enhance students' writing achievements in the modern digital era.

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