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Implementation of a Reading Comprehension Learning Model Using a Scientific Approach with Audio-Visual Media to Enhance Students' Critical Literacy Skills

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui implementasi model pembelajaran keterampilan membaca pemahaman melalui pendekatan ilmiah dengan menggunakan media audio visual. Pendekatan pembelajaran ini berdasarkan pada metode ilmiah yang bertujuan untuk memperkuat keterampilan literasi kritis Mahasiswa melalui pembelajaran yang terstruktur dan terkontrol. Penggunaan media audio visual dimaksudkan untuk mempermudah pemahaman Mahasiswa terhadap materi yang diajarkan dan memperkuat keterampilan literasi kritis mereka. Penelitian ini dilaksanakan dalam format Penelitian Tindakan Kelas dengan subjek penelitiannya adalah Mahasiswa jurusan Agribisnis Universitas Mulawarman. Metode pengumpulan data mencakup observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa penerapan model pembelajaran membaca pemahaman dengan pendekatan ilmiah yang didukung oleh media audio visual mampu meningkatkan proses dan hasil pembelajaran keterampilan membaca pemahaman serta meningkatkan keterampilan literasi kritis Mahasiswa. Perbaikan dalam proses pembelajaran tercermin dari kemampuan Mahasiswa dalam mengidentifikasi ide utama dalam paragraf serta partisipasi aktif mereka dalam proses pembelajaran.

ABSTRACT

This study aims to investigate the implementation of a reading comprehension learning model using a scientific approach with audio-visual media. This learning approach is based on the scientific method and seeks to strengthen students' critical literacy skills through structured and controlled learning. The use of audio-visual media is intended to facilitate students' understanding of the material taught and reinforce their critical literacy skills. This research was conducted in a Classroom Action Research format, with students from the Agribusiness Department at Mulawarman University as the research subjects. Data collection methods included observation, interviews, and documentation. The research findings indicate that applying a reading comprehension learning model with a scientific approach supported by audio-visual media can improve both the process and outcomes of reading comprehension learning, as well as enhance students' critical literacy skills. Improvements in the learning process were reflected in students' ability to identify main ideas in paragraphs and their active participation in the learning process.

1. INTRODUCTION

Education is a cornerstone in preparing future generations to face complex challenges in our ever-evolving global society (Ariokunto & Jabar, 2004). One crucial aspect of education is critical literacy—the ability to understand, analyze, and critically evaluate texts. At the higher education level, developing critical literacy skills forms an essential foundation for building strong comprehension in students. Therefore, developing an effective learning model to help enhance students' critical literacy skills has become an urgent necessity.

Implementing a learning model that integrates a scientific approach with audio-visual media requires creative and skilled educators who can act as learning facilitators. Educators need to design

engaging, relevant, and challenging learning experiences for students, while also providing appropriate guidance to facilitate an effective learning process. Additionally, support from the university is crucial for providing the necessary resources and infrastructure to implement this learning model.

This research aims to develop a learning approach that uses scientific concepts and audio-visual technology to improve students' reading comprehension and critical literacy. The scientific approach referenced is a learning method proven effective by adhering to established scientific principles. The use of audio-visual media will be facilitated to strengthen students' understanding of the material and simplify the learning process. Critical literacy is a key skill, highly essential for students, as it impacts their ability to read, write, and communicate effectively.

Reading plays a central role in our lives. Through reading, individuals can access various information and knowledge. In education, reading activities are one of the most fundamental elements in the teaching and learning process. Thus, students should be able to perform reading activities well as an integral part of their learning journey.

According to (Somadayo, 2011), reading is an interactive activity that enables a person to grasp and understand the meaning contained within written material. (Henry, 2008) suggests that reading is a process where the reader seeks messages or information the author wishes to convey through words or spoken language. From these two perspectives, it can be concluded that reading plays a vital role for individuals in understanding information, whether it's in written form or from their surrounding environment. To understand information well, specific skills are needed, one of which is reading comprehension.

According to (Soedarso, 1988), reading comprehension is the skill of understanding the main ideas and important details from the entirety of a text. Effective reading comprehension skills can be mastered by students through structured learning, repetitive practice, and consistent habituation. According to (Dalman, 2013), reading instruction in higher education should focus on the ability to understand the content of a text. Therefore, reading comprehension skills need to be taught intensively. In this regard, educators play a crucial role in the success of students' reading comprehension skills.

The primary goal of this research is to investigate the implementation of a reading comprehension learning model using a scientific approach with audio-visual media. This study utilizes audio-visual media as a learning aid to facilitate a more effective and enjoyable understanding of the material.

2. METHOD

This research is a qualitative study with a descriptive approach. This research method aims to describe a phenomenon or event in detail and in-depth, focusing on understanding its meaning, characteristics, and context, without manipulating variables. The study uses non-numerical data such as interviews, observations, and documents to produce rich and detailed descriptions (Allan, 2020). The subjects of this research were 28 students from the Agribusiness Department, Faculty of Agriculture, Mulawarman University, consisting of 15 male students and 13 female students.

The data collection techniques used in this research include observation, tests, and documentation. The data collection instruments used in this research include observation sheets and reading comprehension skill tests. Observation allows researchers to directly observe the situations or phenomena under investigation, while tests provide a concrete picture of respondents understanding or abilities (Pardjono et al., 2007). Additionally, the use of documentation such as archives, notes, or recordings also provides crucial support in gathering relevant data. By using observation sheets, researchers can systematically record various observed aspects, while reading comprehension skill tests provide a clear overview of respondents' level of understanding of specific material (Sudarti et al., 2024). This careful combination of data collection techniques and instruments forms a strong foundation for comprehensive and informative research.

3. RESULT AND DISCUSSION

Result

Based on initial observations, some students still face difficulties in developing reading comprehension skills, especially in understanding text content and identifying the main ideas of paragraphs. This was evident when they encountered questions given by educators, where several students struggled to find the main idea of a paragraph and summarize the text content. In fact, some students chose not to attempt the questions because they found them too difficult. This inability resulted in a disparity between students who could and could not determine the main idea of a paragraph, with only a small number of students able to meet the minimum standard.

Turner in (Somadayo, 2011) states that a person can be said to understand a reading well if they:

1. Understand the meaning of words or sentences within the text and comprehend their context.
2. Connect the meaning of the text to personal experiences.
3. Grasp the overall meaning of the text within its context.
4. Consider the value of the text based on their reading experiences.

(Somadayo, 2011) also explains that good reading comprehension also involves the ability to:

1. Understand the meaning of words and expressions used by the author.
2. Recognize both explicit and implicit meanings within the text.
3. Draw conclusions from the read text.

The research findings from the first stage indicate a significant improvement in students' reading comprehension test scores. Data shows a marked increase from the first to the second meeting, where the number of students achieving the success criteria rose from 3 to 12 students, or by 48%. Conversely, the number of students who had not yet met the success criteria decreased from 22 to 13 students, or by 52%. Furthermore, the average score for reading comprehension skills also saw a significant increase, rising from 51.2% to 60.4%.

Observations conducted in the first stage revealed improvements in several reading skill indicators, such as the ability to determine main sentences, analyze the purpose of a text, draw conclusions, and express opinions consistent with the text's content. This suggests that the implemented learning approach positively impacted students' comprehension of read texts.

In the second stage, reading comprehension test results showed further improvement from the previous cycle. The number of students who met the action's success criteria increased to 18 from the previous 12 students, or 72%. On the other hand, the number of students who had not yet met the success criteria decreased to 7 from the previous 10 students, or 28%. Additionally, the average class score also increased, rising from 68.6% to 70%.

Observations in the second stage also confirmed improvements in several reading skill indicators, such as the ability to analyze the purpose of a text, draw conclusions, and express opinions consistent with the text's content. This reinforces that the focused learning approach, supported by audio-visual media, consistently yields positive impacts on students' learning processes.

Furthermore, the research findings also highlight the importance of integrating technology into the learning process. Audio-visual media provides a more engaging and interactive way for students to understand learning materials, enabling them to participate more actively in learning. With continuous technological advancements, this approach can also offer broader accessibility to learning materials for students with diverse backgrounds and needs (Aflalo & Gabay, 2013).

However, it's important to remember that using audio-visual media is just one of many effective learning methods. Combining it with other approaches like group discussions, collaborative projects, and hands-on practice should also be considered to create a holistic and in-depth learning experience for students. Thus, educators are expected to continuously enrich their repertoire of teaching methods to accommodate diverse learning styles and student needs (Eshankul, 2024).

Continuous evaluation is also crucial in measuring the effectiveness of the implemented learning approach. Through careful evaluation, educators can identify the strengths and weaknesses of a particular learning approach and gain valuable feedback for future improvements. By effectively utilizing evaluation data, they can adjust learning strategies according to student needs and create a more inclusive and empowering environment.

Another critical aspect is the collaboration among educators, researchers, and educational practitioners in developing innovative and effective learning approaches. Through the exchange of knowledge and experience, they can support each other in finding the best solutions to improve student learning outcomes. Therefore, this cooperation not only enriches their insights but also helps accelerate progress in the field of education as a whole.

Discussion

In light of these promising results and the recognized challenges, future research could explore the long-term impact of this integrated learning model on students critical literacy development beyond the immediate study period (Satriani et al., 2012). Further investigation into specific characteristics of audio-visual media that most effectively enhance comprehension and critical thinking might also yield valuable insights. Additionally, examining how this model could be adapted for different subject areas or student demographics could broaden its applicability and impact across various educational contexts.

Implications for Curriculum Development

The demonstrable effectiveness of integrating a scientific approach with audio-visual media in boosting reading comprehension and critical literacy has significant implications for curriculum development (Selvi et al., 2025). Educational institutions should consider formally incorporating such models into their core curricula, especially in disciplines demanding high levels of textual analysis and critical thinking like Agribusiness. This would involve a systematic review of existing syllabi to identify opportunities for implementing these methods, potentially leading to the creation of new courses or modules specifically designed around these pedagogical principles. Furthermore, curriculum developers could explore how these media-enhanced scientific approaches might be adapted to foster critical literacy across a broader range of subjects, ensuring students are equipped with these essential skills regardless of their chosen field.

Professional Development for Educators

To successfully implement these advanced learning models, robust professional development programs for educators are paramount. While the research highlights the need for creative and skilled facilitators, it also underscores the necessity of continuous training. These programs should not only focus on the technical aspects of integrating audio-visual tools but also on refining educators' understanding of the scientific approach to learning and its application in fostering critical literacy (Brown & Alford, 2023). Training could involve workshops on designing engaging content, effectively using various audio-visual platforms, and assessing critical thinking skills. Investing in ongoing professional development ensures that educators remain at the forefront of pedagogical innovation, capable of delivering high-quality, impactful learning experiences.

Bridging the Gap Between Theory and Practice

This study effectively bridges the gap between educational theory and practical application (Al-Rantisi & Akl, 2011). By demonstrating tangible improvements in student outcomes, it provides empirical evidence supporting the use of a scientific approach combined with audio-visual aids. This move from theoretical understanding to proven practical implementation offers a valuable blueprint for other educators and institutions facing similar challenges in enhancing critical literacy. The findings can serve as a catalyst for educational reform, encouraging a shift towards more dynamic, interactive, and evidence-based teaching methodologies. It reinforces that well-designed interventions, even within existing frameworks, can lead to significant positive changes in student learning.

Potential for Personalized Learning Paths

The insights gained from this research also open avenues for exploring personalized learning paths. While audio-visual media generally enhances understanding, its flexible nature allows for tailoring content to individual student needs and learning paces. Future studies could investigate how

adaptive learning technologies, integrated with a scientific approach, could personalize the delivery of reading comprehension exercises and critical literacy challenges (Hue-Shin & Dine, 2025). This could involve AI-driven platforms that adjust difficulty levels based on real-time student performance, or provide supplementary audio-visual materials for specific areas of difficulty. Such personalization could further optimize learning outcomes, ensuring that every student receives the targeted support they need to excel.

Fostering a Culture of Critical Thinking

Ultimately, the successful implementation and expansion of such learning models contribute to fostering a broader culture of critical thinking within academic institutions and beyond. When students are consistently engaged in learning environments that demand analysis, evaluation, and nuanced understanding, they internalize these skills as fundamental aspects of their intellectual toolkit (Rivas et al., 2023). This goes beyond mere academic achievement; it equips future generations with the ability to navigate complex information landscapes, make informed decisions, and contribute thoughtfully to societal discourse. By prioritizing critical literacy through innovative pedagogical approaches, educational institutions fulfill their vital role in preparing citizens who are not just knowledgeable, but also discerning and intellectually agile.

4. CONCLUSION

Based on the findings and analysis of this research, it can be concluded that the learning of reading comprehension skills using a scientific approach supported by audio-visual media yielded the following results: (1) The learning process improved, as evidenced by observations of student activities during the learning process. This improvement covered several indicators, such as literal comprehension, where students were able to determine main sentences and find explicit information from four readings. Improvements also occurred in the reorganization, decision-making, and evaluation indicators, where students could analyze the purpose of the text, draw conclusions, and express their opinions. However, there was no significant increase in the appreciation indicator. (2) Enhanced Reading Comprehension Skills: The results of the learning process demonstrated an overall increase in reading comprehension skills. Initially, the percentage of students meeting the minimum mastery criteria was 48%, which later rose to 72%. Additionally, the class average score improved from 60.4 to 70. This indicates that the reading comprehension learning model, utilizing a scientific approach aided by audio-visual media, was effective in boosting both reading comprehension and critical literacy skills in students.

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