Student Learning Using Powtoon and PowerPoint Learning Media with a Contextual Teaching Approach

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A R T I C L E   I N F O

A B S T R A K

Seiring kemajuan teknologi yang terus berkembang, para pendidik ditantang untuk mengembangkan berbagai bentuk media pembelajaran. Kehadiran media pembelajaran dalam suatu proses pendidikan memegang peranan penting dalam meningkatkan efektivitas komunikasi dan memudahkan penyampaian ilmu pengetahuan oleh guru kepada siswa, sehingga memungkinkan guru menjadi lebih kreatif dan inovatif dalam menyampaikan konten. Penelitian ini bertujuan untuk menganalisis keefektifan penggunaan Powtoon dan PowerPoint sebagai alat media, dengan menerapkan pendekatan pengajaran kontekstual untuk meningkatkan hasil belajar siswa kelas IX. Penelitian ini menggunakan pendekatan kuantitatif, dengan desain penelitian yaitu post-test only control grup design. Subjek penelitian terdiri dari dua kelas, masing-masing terdiri dari 27 siswa. Metode pengumpulan data yang digunakan dalam penelitian ini meliputi tes dan angket. Instrumen penelitian meliputi tes enam item dan kuesioner sepuluh pertanyaan. Metode eksperimental melibatkan penerapan Powtoon di satu kelas dan PowerPoint di kelas lainnya, dengan kedua kelas menerapkan pendekatan pengajaran kontekstual. Setelah data dikumpulkan kemudian dianalisis menggunakan statistik deskriptif dan uji-t. Berdasarkan analisis yang telah dilakukan menunjukkan bahwa, terdapat perbedaan yang signifikan dalam hasil belajar antara dua kelompok siswa yang menggunakan Powtoon dan PowerPoint. Berdasarkan hasil tersebut, maka dapat disimpulkan bahwa media powtoon dan powerpoint efektif terhadap hasil belajar siswa. Implikasi dari penelitian ini adalah untuk merancang strategi pembelajaran yang lebih efektif dengan memanfaatkan media pembelajaran yang tepat serta dapat mengeksplorasi lebih jauh tentang berbagai aspek penggunaan media pembelajaran.

A B S T R A C T

As technological advances continue to develop, educators are challenged to create various forms of learning media. The presence of learning media in an educational process plays a vital role in increasing the effectiveness of communication and facilitating the delivery of knowledge by teachers to students, thus allowing teachers to be more creative and innovative in delivering content. This study aims to analyze the effectiveness of using Powtoon and PowerPoint as media tools by applying a contextual teaching approach to improve the learning outcomes of grade IX students. This study used a quantitative approach, with the research design being a post-test-only control group. The research subjects consisted of two classes, each composed of 27 students. Data collection methods used in this study include tests and questionnaires. The research instruments included a six-item test and a ten-question questionnaire. The experimental method involved applying Powtoon in one class and PowerPoint in the other, with both classes applying the contextual teaching approach. After the data was collected, it was analyzed using descriptive statistics and a t-test. The analysis that was conducted shows that there is a significant difference in learning outcomes between the two groups of students using PowToon and PowerPoint. Based on these results, PowerPoint and PowerPoint media are effective in student learning outcomes. The implication of this research is to design more effective learning strategies by utilizing appropriate learning media and to explore further the various aspects of using learning media.

1. INTRODUCTION

Education is an essential aspect that must be possessed by all individuals, and in every religious doctrine, it is advocated that every individual must strive to obtain education. The quality of education in Indonesia needs to be continuously enhanced in line with the development of the era of globalization. The results of the PISA study (Program for International Student Assessment) indicate the necessity for a change in curriculum orientation, moving away from burdening students with content towards focusing on essential skills that all citizens need to participate in building the nation in the future (Muhali, 2018; Saleh, 2022). The remarkable progress in science and technology in the current era of globalization has

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made the world feel both expansive and restrictive. The increase in cases of uncontrolled behavior among adolescents is not a new phenomenon in Indonesia, given that adolescence is a period during which individuals are seeking their identity and building their sense of self. Adolescents at this stage are highly vulnerable to various pressures and negative influences from peers or their environment. The adolescent period marks the transition from childhood to early adulthood (Primasari et al., 2019; Tianingrum & Nurjannah, 2020). In conclusion, the pursuit of education is emphasized universally, and the educational landscape in Indonesia must evolve to meet the challenges posed by globalization. The findings from the PISA study underscore the need for a shift in curriculum focus towards essential skills. Additionally, the profound advancements in science and technology have both expanded and narrowed our world. Addressing the surge in uncontrolled behavior among adolescents is imperative, recognizing that this developmental stage is a critical time for identity formation and susceptibility to external influences. Overall, acknowledging these factors is crucial for fostering a well-rounded and resilient citizenry for the future. The presence of instructional media in an educational process plays a crucial role in enhancing the effectiveness of communication and facilitating the delivery of knowledge by teachers to students. Education is an endeavor to prepare the younger generation to face the developments of the times in the global era. Instructional media can clarify the presentation of messages and information, thereby facilitating and improving the learning process and outcomes (Ramdani et al., 2021; Rejeki et al., 2020). Entering the 21st century, science and technology have continued to advance compared to previous years. This is evident in the increasing demand for new skills suitable for this era. Instructional media serves as an intermediary in the learning process, enabling teachers to become more creative and innovative in delivering content. Moreover, instructional media helps students avoid feeling bored during classes. As technological advancements continue to expand, educators are challenged to develop various forms of instructional media. One notable example is the evolution of technology (Arosyad et al., 2021; Ayu et al., 2019; Firmadani, 2020). In summary, the role of instructional media in education is pivotal, enhancing communication effectiveness and facilitating knowledge transfer.

PowToon can serve as a solution to the challenges faced in teaching Civic Education, particularly in conveying the concept of citizenship in real-time. PowToon is a tool that can aid in the learning process. As a video authoring application, PowerPoint Learning Media has various animations and capabilities (Fadhiyah Haifani et al., 2023; Purbaningrum & Aman, 2023). The utility of PowToon in learning media includes clarifying the presentation of material through animations available in PowToon, presented in the form of videos related to the learning content. The use of learning tools or media utilization in the teaching-learning process can evoke interest and motivation among students, potentially influencing their psychological well-being. Fundamentally, there is a diverse range of learning media types. One digital-based learning medium that aligns with current technological developments is PowToon. PowToon is an online service that offers captivating animation features, providing a variety of image options and the ability to incorporate videos and animations, such as manipulating objects or images (Ayu et al., 2019; Fadhiyah Haifani et al., 2023; Fifit & Handayani, 2021).

To ensure effective communication of instructional content in the teaching-learning process, educators often utilize intermediary tools such as module materials, video content, or even PowerPoint instructional media. Microsoft Office PowerPoint is a slide show-type office application program, employing sheets that serve as interchangeable display surfaces for presenting concepts and arguments to an audience. PowerPoint is widely employed due to its user-friendly operation, making it accessible to everyone for creating presentations. The platform offers various appealing features, including text processing capabilities, image insertion, audio integration, and animations, capturing the attention of learners during a presentation (Misbahudin et al., 2018; Wirnawa & Sukma Dewi, 2022). However, it is noteworthy that many educators predominantly utilize PowerPoint with only textual content, lacking animations to engage learners. The material presented often comprises extensive text, resulting in small and illegible font sizes, diminishing readability. Moreover, the absence of animations in the displayed content may contribute to a lack of interest among students. Despite these challenges, efforts to maintain the learning process persist, with schools leveraging technological advancements, information, and communication through the implementation of online learning, which facilitates a more accessible delivery of education (Aisyah et al., 2023; Purwanti et al., 2020). In summary, the use of PowerPoint as an instructional medium is prevalent due to its user-friendly features. However, the tendency to rely on textual content without incorporating engaging elements like animations may hinder student engagement. The achievement of learning objectives is influenced by various factors during the teaching-learning process, including educators, students, the learning environment, teaching strategies, and instructional media. As a learning environment, schools play a crucial role in facilitating students' understanding of the impact of human behavior on Earth and serve as a space for fostering sustainable living. In reality, the teaching process often continues, even if not effectively, resulting in students learning without fulfilling

learning objectives, and in some instances, experiencing a deviation (Ramdani et al., 2021; Sulaiman & Rahmayani, 2023). Given the advantages of PowToon media, it can be effectively utilized to deliver engaging instructional content that captures students' attention. To enhance the quality of the learning process, there is a need for coordination in teaching methods with the support of interactive and appealing instructional media to prevent monotony in the learning experience. This aligns with the notion that Powtoon media, as an animated video, can efficiently convey material concisely, clearly, and attract students' attention (Kiki Yuni Murtiyastuti, 2022; Ngenda et al., 2021). PowToon proves to be highly effective in capturing the interest and learning enthusiasm of participants in face-to-face learning, ultimately contributing to improved learning outcomes. The utilization of PowToon applications makes learning feel vivid, clear, and aids younger participants in comprehending the educational content (Ardita et al., 2024; Tiwow et al., 2022). In summary, the multifaceted factors influencing learning outcomes underscore the importance of effective teaching strategies and instructional media. PowToon emerges as a powerful tool for engaging students, delivering content succinctly and captivatingly. Coordination between teaching processes and interactive media support is crucial for preventing the dullness of the learning experience. The effectiveness of PowToon in attracting attention and enhancing learning outcomes is evident in its ability to create a vivid and comprehensible learning environment for participants. PowToon animated instructional media is an alternative tool employed in the distant learning teaching process. This animation medium is specifically designed to transform abstract concepts into tangible representations, aligning seamlessly with the content covered in the civics education curriculum. The evolution of technology, giving rise to various digital instructional media, significantly influences online learning by serving as a connecting conduit utilized by educators to deliver content to students (Ramdani et al., 2021; Tiwow et al., 2022). The utilization of media is of paramount importance for teachers to support the learning process as it enhances the engagement of learners, leading to an improved level of comprehension. The understanding of instructional content contributes to enhanced student achievement. PowToon, with its diverse features such as hand-drawn animation, cartoon image customization, flexible transition effects, and easily adjustable timelines, is a notable choice. Challenges arise in the difficulty of increasing effectiveness in the learning process using both PowToon and PowerPoint media. The most crucial aspects of the learning process are the teaching methods and the media used; both factors are interconnected and play a vital role in the learning process (Mulyana et al., 2023; Pratiwi et al., 2023; Qurrotaini et al., 2020).

In summary, PowToon serves as a valuable tool for remote teaching, particularly in civics education. The technological advancements that have led to the proliferation of digital instructional media are instrumental in facilitating online learning. The integration of engaging media, such as PowToon, is essential for teachers to enhance learner involvement and comprehension. However, challenges persist in optimizing the effectiveness of these tools in the learning process, emphasizing the pivotal role of both teaching methods and the chosen media. The effectiveness of student learning using instructional media such as PowToon and PowerPoint can be gauged by assessing student responses and feedback. These tools allow the integration of animated videos into PowerPoint presentations, enhancing the learning experience. PowToon, in particular, provides a creative platform to add animations, aiding in student comprehension. Moreover, when students feel fatigued or disengaged during the learning process, PowToon can alleviate this by introducing animated videos. The objective of this research is to evaluate the effectiveness of student learning through the use of instructional media like PowToon and PowerPoint. These platforms enable the inclusion of animated videos within PowerPoint presentations. PowToon, with its creative features, allows for the addition of animations to enhance the learning experience for students. Additionally, when students experience learning fatigue, PowToon can offer relief by presenting animated videos. The primary goal of this study is to enhance the effectiveness of student learning through the utilization of PowToon and PowerPoint instructional media. The assessment involves examining student responses and reactions to learning activities facilitated by these media. In summary, this research aims to explore how the integration of PowToon and PowerPoint in the learning process influences student effectiveness. By assessing student responses to these instructional media, the study aims to contribute valuable insights into the impact of PowToon and PowerPoint on enhancing the learning experience and overall effectiveness of students.

2. METHODS

This study uses a quantitative approach to collect data on student responses to both types of learning media with a research design that is post-test only control group design. The research subjects consisted of two IX classes, namely IX A and IX B classes, each of which amounted to 27 students. The sampling technique used was group random sampling, where one experimental class 1 was treated using

Powtoon media in class IXA and one experimental class 2 was given treatment using Powerpoint media in class IX B. The instrument grids include helping to understand the subject matter, feeling involved with learning, helping to recall information, feeling more motivated to learn, helping to develop achievement skills, helping to understand learning concepts, making you feel more confident in the classroom. There are also indicators of research questions including 1. indicators of religion, 2. indicators of tolerance, 3. indicators of political conflict, 4. indicators of differences in religion and belief, 5. indicators of decreased quality of life, and 6. indicators of inclusive extracurricular activities. In summary, The quantitative approach allows for the systematic collection and analysis of data related to students' responses. The two selected ninth-grade classes provide a comprehensive sample for evaluating the impact and effectiveness of these instructional media in enhancing the learning experience in the field of Pancasila and Civic Education. The research procedures are outlined in Figure 1.
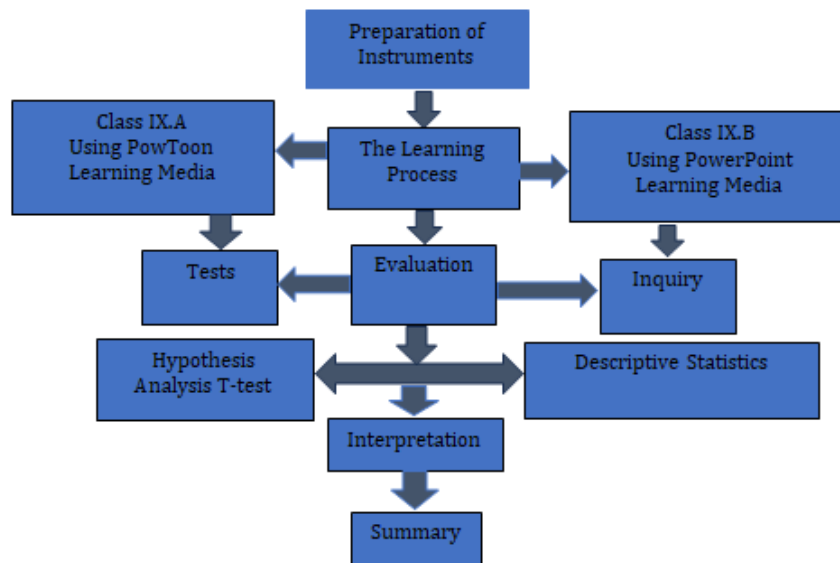

Figure 1. Research Procedure

The data collection methods of this study include tests and questionnaires. The instrument used was in the form of an essay question sheet. There were 6 items of essay type questions used to measure student learning outcomes. Strategically designed to align with the indicator variables of the research. Meanwhile, the questionnaire includes 10 questions with multiple-choice options covering a spectrum from strongly disagree to strongly agree, assigning scores ranging from 1 to 5. Data collection occurred through several stages, including the development of research instruments, a 5-day implementation of learning using PowToon and PowerPoint, offline distribution of tests and questionnaires and data tabulation. Before testing students, we validated the instrument, the validation process was carried out by two experts. The data that has been collected in this study was analyzed using JASP software to interpret the results of data analysis. Data analysis employing descriptive statistics, and the application of the student's t-test (t-test) through the JASP software. In the final stage, the criteria for interpreting data involve assessing the conclusions based on the results. If the significance value (Sig) is less than 0.05 (α = 0.05), the null hypothesis (H0) can be rejected. In summary, the research instruments encompass a carefully constructed test and a questionnaire, both serving to evaluate the effectiveness of instructional media. The comprehensive data collection process involves various stages, including instrument development, practical implementation, and statistical analysis. The application of the student's t-test facilitates a robust evaluation of the research hypothesis, with a rejection criterion based on a significance level of 0.05.

3. RESULT AND DISCUSSION

Results

The data collection process in this research was carried out through a series of activities, including instruction, administering tests, and distributing questionnaires to junior high school students. These activities were conducted over a five-day period and involved classes IX A and IX B, with a total of

54 respondents. Participants were asked to provide their responses by selecting answers that aligned with their personal preferences, categorized on a scale from strongly agree to disagree. The gathered data was then organized and presented in a table. This table reflects the students' responses to the use of instructional media Powtoon and PowerPoint within the context of a contextual teaching approach. The data collection process offers a detailed overview of students' perceptions regarding the effectiveness of learning through these two types of media. In summary, the data collection process involved multiple stages and engaged students in various activities over a five-day period. The resulting dataset, organized and presented in a table, serves to depict students' perspectives on the effectiveness of learning through Powtoon and PowerPoint within a contextual teaching framework. This approach allows for a nuanced understanding of students' perceptions regarding the utilization of these instructional media in the learning process.

Further analysis was conducted on the visual representation of the data with the aim of exploring the distribution of responses from the respondents. This was undertaken to gain a deeper understanding of the extent to which students evaluate the effectiveness of learning using Powtoon and PowerPoint. The results of this analysis are anticipated to provide a significant contribution to understanding students' responses to the learning process through multimedia learning technologies. The learning outcome data is presented in Figure 2, and descriptive statistics are then determined, as shown in Table 1. In summary, a detailed analysis was performed to explore the distribution of responses from the participants, aiming to deepen the understanding of how students assess the effectiveness of learning using Powtoon and PowerPoint. The subsequent analysis and statistical measures, as presented in Figure 2 and Table 1, contribute valuable insights into students' responses and enhance the overall comprehension of their engagement with multimedia learning technologies. Data on the learning outcomes of class IX A and class IX B are presented in Figure 2, as well as Table 1.
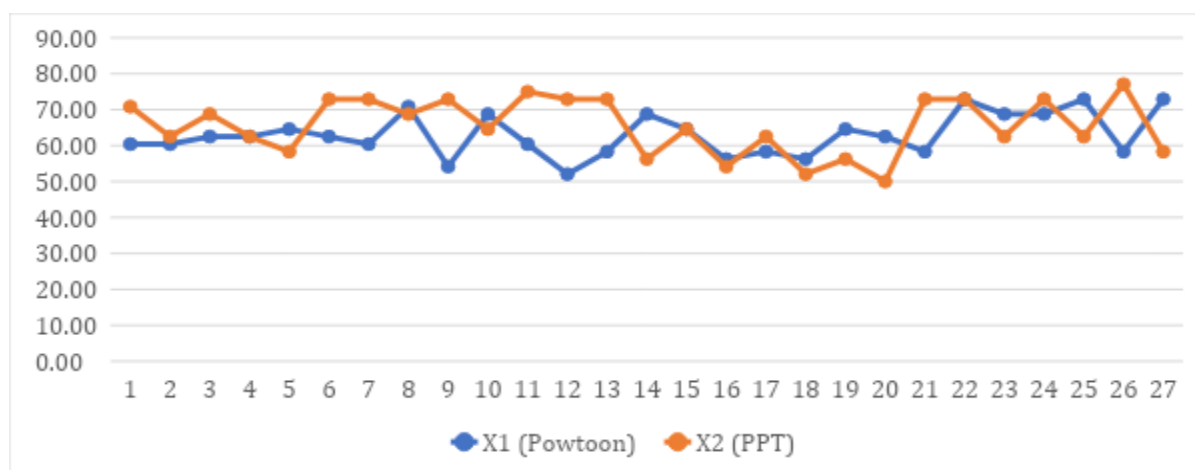

Figure 2. Test Result Data of Class IX.A and IX.B

Table 1. Descriptive Statistics

Descriptive Statistics		
	X1 (Powtoon)	**X2 (PPT)**
Valid	27	27
Mean	63.04	65.59
Std. Error of Mean	1.13	1.50
Std. Deviation	5.88	7.80
Variance	34.59	60.90
Range	20.84	27.08
Minimum	52.08	50.
Maximum	72.92	77.08

Table 1 presents the descriptive statistics concerning the assessment results in two classes, namely Class IX A and IX B. Class IX A obtained an average score of 63.040, with a maximum score reaching 72.920. The recorded standard deviation of 5.882 indicates the level of data variation, while the variance value of 34.593 provides further insight into the data distribution within that class. On the other

hand, Class IX B exhibits an average score of 65.587, with a maximum score of 77.080. The higher standard deviation, specifically 7.804, reflects a greater level of dispersion in the assessment results of students in Class IX B. The variance value of 60.903 signifies a broader variation in the data distribution within that class. In summary, Table 1 details the descriptive statistics for the assessment results in two classes, showcasing average scores, maximum scores, standard deviations, and variances. These statistical measures offer a comprehensive overview of the data distribution and variability within the assessment results for both Class IX A and IX B.

The interpretation of these results indicates differences in the assessment characteristics between Class IX A and IX B. Class IX A exhibits a slightly lower average score and a smaller standard deviation, signifying consistency in students' responses to the learning indicators. Conversely, Class IX B shows a slightly higher average score with a larger standard deviation, depicting a more significant diversity in students' assessments of the learning indicators. This variation may point to differences in understanding and acceptance of the learning material between the two classes and could serve as a starting point for further exploration of factors that may influence assessment outcomes and more effective teaching strategies. The researcher conducted hypothesis testing using the t-test, and the results are presented in Table 2. In summary, the comparative analysis of Class IX A and IX B reveals distinct characteristics in the assessment results. These differences may stem from variations in the comprehension and reception of learning material between the two classes. Further exploration is warranted to investigate potential factors influencing assessment outcomes and to identify more effective teaching strategies. The hypothesis testing results using the t-test are detailed in Table 2.

Table 2. T-test Hypothesis Data

				Paired Samples Test				
				Paired Differences				
	Mean	**Std. Deviation**	**Std. Error Mean**	**95% Confidence Interval of the Difference**		**t**	**df**	**Sig. (2-tailed)**
				Lower	**Upper**			
Pair 1 X1 - X2	-2.54	10.52	2.02	-6.70785	1.61451	-1.258	26	0.220

Table 2 presents the results of the hypothesis testing using a paired-sample t-test to assess the differences in perceptions. The obtained t-test value is -1.258, with a significance level (sig) of approximately 0.220. The null hypothesis (H0) in this context asserts that there is no difference in students' perceptions regarding the effectiveness of learning between the use of Powtoon and PowerPoint instructional media within the contextual teaching approach. The interpretation of these results indicates that the t-test value of -1.258 is smaller than the critical value expected to reject the null hypothesis at a certain significance level. Therefore, there is insufficient evidence to reject the null hypothesis, suggesting no significant difference in students' perceptions regarding the effectiveness of learning between the use of Powtoon and PowerPoint instructional media within the contextual teaching approach. This outcome provides insight that both instructional media have a similar impact in enhancing students' perceptions of the effectiveness of learning, thereby contributing to a comprehensive understanding of the use of multimedia learning technologies in an educational context. In summary, the paired-sample t-test results in Table 2 demonstrate that there is no significant difference in students' perceptions of the effectiveness of learning between the use of Powtoon and PowerPoint within the contextual teaching approach. These findings contribute valuable insights into the comparable impact of both instructional media in enhancing students' perceptions of the effectiveness of learning.

Therefore, the exploration of the role of technology in the learning context is not merely analytical but also provides a substantial foundation for the development of educational policies and practices that can compete and align with the advancements in information technology. In-depth research and understanding of technology integration in the learning process contribute significantly to the formulation of policy strategies that are responsive to the demands of the times. Beyond being a learning aid, technology serves as a catalyst for creating more adaptive, innovative, and relevant learning models. In this framework, educational policy development must accommodate the dynamics of information technology to ensure that the curriculum and teaching methods consistently reflect the latest developments. The involvement of technology in education can create a dynamic learning environment, promote student engagement, and open access to global educational resources. Thus, the integration of technology is not just an additional tool but an integral element in producing graduates who are competent, adaptive, and ready to face the challenges of the digital era. Furthermore, the researcher aims

to provide a descriptive overview of each variable, and the results are depicted in Figure 3. In summary, the exploration of technology's role in education extends beyond a mere analytical perspective. It serves as a substantial basis for formulating policies and practices that are responsive to technological advancements. The integration of technology in education is viewed as an essential element in shaping competent and adaptive graduates, fostering a dynamic learning environment, and ensuring access to global educational resources. The results of the descriptive analysis for each variable are illustrated in Figure 3.
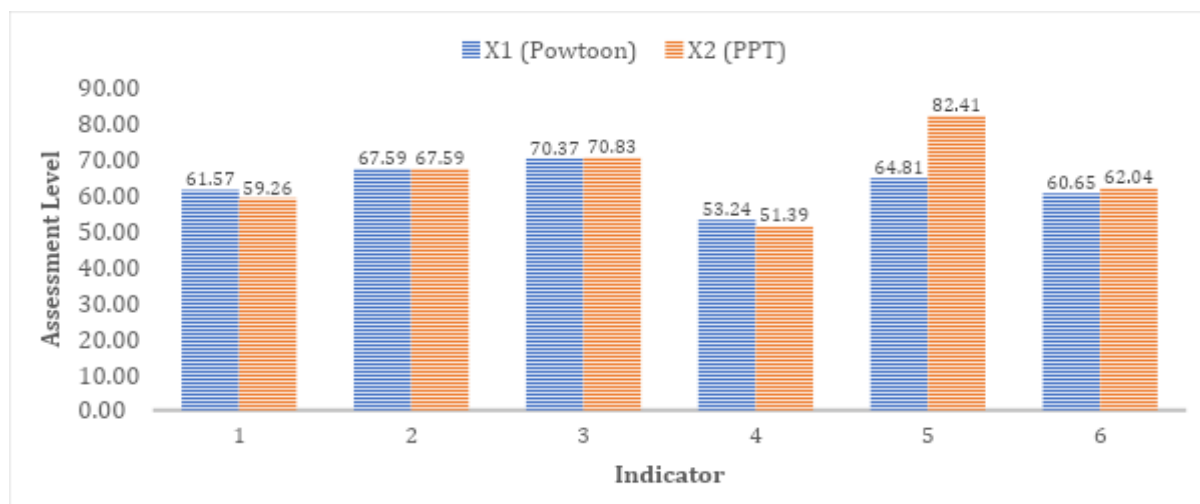

Figure 3. Assessment of PowToon and PowerPoint Learning

Student assessments of learning indicators using Powtoon and PowerPoint in Class IX A show an average score of 61.57. This result is derived from the highest maximum score of 72.920 achieved in indicator 1, indicating high performance in that aspect. However, there is also a minimum score of 52.080 in indicator 4, indicating variability in students' achievements in that aspect. Further analysis is necessary to understand the factors influencing these differences to identify potential improvements in the use of these instructional media. Subsequently, Class IX B obtained an average assessment score of 59.26, with the highest maximum score in indicator 1 reaching 77.080. Nevertheless, there is a minimum score of 50.000 in indicator 4, signifying variability in outcomes in that aspect. The comparison between Class IX A and IX B illustrates differences in student achievements, with Class IX A tending to show slightly better performance. This comparative analysis can serve as a basis for identifying effective teaching strategies and optimizing the use of Powtoon and PowerPoint media to enhance learning outcomes in both classes. In summary, the analysis of student assessments in both classes provides insights into the performance variations and potential areas for improvement in utilizing Powtoon and PowerPoint as instructional media. This comparative analysis serves as a crucial foundation for identifying effective teaching strategies and optimizing the utilization of instructional media such as Powtoon and PowerPoint. A profound understanding of the use of both media allows for the exploration of their respective strengths and weaknesses, leading to the formulation of improvement measures that can enhance learning outcomes in both classes. For instance, strengthening the use of Powtoon can involve emphasizing visual elements and animations to enhance students' engagement with the learning material. On the other hand, optimizing PowerPoint can entail increasing interactivity and utilizing graphics that support the understanding of concepts. Therefore, through this analysis, it is anticipated that more effective teaching strategies can be developed, maximizing the potential of both media and ultimately improving learning achievements in the classrooms. In summary, the detailed examination of the use of Powtoon and PowerPoint facilitates the identification of specific strengths and weaknesses, allowing for targeted improvements. This analysis aims to contribute to the development of more effective teaching strategies that harness the full potential of both instructional media, thereby enhancing overall learning outcomes in the classrooms.

Discussion

The research results indicate that the use of Powtoon in education can enhance student engagement. The captivating animations and visual elements provide additional stimulation, triggering student involvement in the learning process. Powtoon offers a more interesting and interactive learning

experience, which can boost students' interest in learning. Dynamic animations and presentations make the learning environment more engaging, reducing the potential for boredom and increasing students' motivation to participate in lessons. This study aligns with previous findings that also demonstrate the positive impact of using Powtoon on student learning outcomes. Use of Powtoon-based learning media, coupled with a contextual approach, resulted in effective learning outcomes. They stated that a well-implemented contextual approach can assist students in their learning activities. The utilization of Powtoon not only enhances short-term learning interest but also contributes to fostering long-term learning enthusiasm. The diversity in learning media can stimulate students' curiosity and encourage them to actively seek knowledge. This finding is in line with research conducted by other researchers who stated that, using Powtoon as a learning medium can improve students' interest and learning outcomes. With increased engagement and learning interest, students in classes that incorporate Powtoon tend to achieve better results. This suggests that the use of innovative learning media can have a positive impact on students' academic achievement. The majority of students responded positively to the appeal of Powtoon as a learning medium. Dynamic animations and visual elements are perceived as engaging factors that make the learning experience more captivating. Student responses also indicate that the use of Powtoon enhances their level of engagement in the learning process. Interactive animations and different presentation styles provide additional stimuli, encouraging active participation. This outcome aligns with previous research, as indicated by other researchers who stated that, stating that the implementation of developmental stages of video animation media based on Powtoon is highly suitable as an effective learning medium. This effectiveness ensures that the material is easily understood, making it efficiently utilized in the learning process (Ariyanto et al., 2018; Lovisia et al., 2023; Studi et al., 2020).

Most students express that the utilization of Powtoon has aided them in comprehending learning concepts more effectively. Animated elements supporting textual explanations enhance students' understanding of the lesson material. Questionnaire results indicate a positive correlation between students' responses to PowToon and improved learning outcomes. Students providing positive responses tend to achieve increased academic performance, underscoring the vital role of academic achievement in enhancing students' motivation and enthusiasm for learning. Positive experiences of accomplishment in learning serve as effective stimuli, fostering diligence and eagerness in students. Satisfactory academic achievements cultivate confidence and personal satisfaction among students, rendering the learning process more meaningful. Improved academic performance also fosters a positive learning environment where students feel supported and motivated to strive for continuous improvement. Thus, enhanced academic achievements serve as a robust driver for students to become more diligent, enthusiastic, and predisposed to enjoy the learning process. Moreover, high-quality academic achievement can create an allure for the learning material. Students who attain excellent academic performance are more likely to find joy in exploring new knowledge. They can develop a strong interest in specific study areas and feel compelled to delve deeper into the respective subjects. Enhanced academic performance opens the door to sustaining intrinsic motivation, where students voluntarily engage in the learning process without being solely driven by external rewards. Thus, improved academic achievement serves not only as an indicator of learning success but also as a primary driver to strengthen the positive connection between students and the learning process, creating an educational environment that integrates challenges and the satisfaction of learning. Increased academic achievement is not merely an indicator of success in the learning process but also a primary catalyst to reinforce positive connections between students and the learning environment. Improved achievements reflect the effectiveness of teaching methods and students' efforts in mastering the learning material. This success can stimulate students' motivation for greater involvement in the learning process, shaping a proactive mindset and fostering sustained enthusiasm for learning. Hence, improved academic achievement establishes a solid foundation for creating a balanced and supportive educational environment. This environment is designed to align learning challenges with satisfaction, fostering an atmosphere that encourages the exploration of new concepts and provides opportunities for students to develop their skills and knowledge holistically. In such an environment, students are not only confronted with challenging academic tasks but also experience satisfaction in overcoming and understanding the material (Andriana et al., 2023; Hasbullah & Suhra, 2021). Moreover, the positive relationship between academic achievement and the learning experience forms a solid foundation for the comprehensive development of students' potential. By combining challenges and learning satisfaction, the educational environment can become a platform that stimulates critical thinking, creativity, and problem-solving abilities. Therefore, enhanced academic achievement not only provides direct benefits in terms of knowledge but also makes a significant contribution to shaping the character and readiness of students to face the demands of an ever-changing world. This study aims to explore the effectiveness of using PowerPoint-based presentations in enhancing students' understanding and academic performance in the classroom. In this context, the research aligns with previous findings that

also indicate the positive impact of using presentation media such as PowerPoint on students' learning outcomes. Use of PowerPoint media in direct instruction has a positive effect on students' learning motivation and cognitive learning outcomes. This research observes changes in student participation and understanding before and after the implementation of PowerPoint media in learning. In the initial stages, students demonstrated relatively low levels of participation and suboptimal understanding of the material when learning was conducted without the use of PowerPoint media. However, after the implementation of PowerPoint media, there was a significant change in students' reactions to the learning material. Students not only exhibited a more positive response to the material but also appeared more active during the learning process. They seemed to grasp and understand the material better, accompanied by an increased engagement in their interaction with the presentation media. These findings align with previous research highlighting the positive role of instructional media, especially PowerPoint, in stimulating student participation and understanding. Therefore, the results of this study contribute to our understanding of the effects of using presentation media on the dynamics of classroom learning. The practical implications of this research can serve as a foundation for enhancing the effectiveness of teaching methods by leveraging PowerPoint media to improve student participation and understanding.

The research method employed involved collecting data from students engaged in learning using PowerPoint presentations. Student understanding was measured through knowledge tests and comprehension assessments, while learning outcomes were evaluated through final evaluations. This aligns with previous research opinions, where according to other researchers who stated tha, there is a significant influence of media use on student learning outcomes and motivation, as evidenced by the academic achievements and learning motivation of students taught with PowerPoint media. The outcomes of this research are anticipated to contribute additional insights to the literature supporting the effectiveness of using PowerPoint-based presentations in an educational context. This study is expected to provide a valuable contribution to the literature examining the effectiveness of PowerPoint-based presentations in the field of education. By focusing on a comprehensive understanding of the utilization of presentation tools, this research aims to stimulate the development of more sophisticated and responsive teaching methods (Intaniasari & Utami, 2022; Maharani & Rusnilawati, 2023; Minimnya et al., 2021). This opens opportunities to delve into specific aspects that can enrich our understanding of how presentation technology, particularly PowerPoint, can be effectively optimized to support the learning process. The contribution of this research can be articulated as a significant step in addressing potential gaps in the literature that may not have been fully explored. The research outcomes are expected to provide further insights into the potential and limitations of using PowerPoint-based presentations to support the achievement of educational objectives. Therefore, this study not only explores the role of technology in learning but also establishes a solid foundation for the development of competitive educational policies and practices in line with information technology advancements. The exploration of technology's role in the learning context is not only analytical but also provides substantial grounds for the development of policies and educational practices that can compete and align with information technology developments. A profound understanding of technology integration in the learning process significantly contributes to formulating policy strategies that are responsive to the demands of the times. Besides serving as a learning aid, technology also acts as a driver for creating more adaptive, innovative, and relevant learning models. Within this framework, the development of educational policies must accommodate the dynamics of information technology, ensuring that curricula and teaching methods consistently reflect the latest developments. The involvement of technology in education can create a dynamic learning environment that encourages student engagement and opens access to global educational resources. Therefore, the integration of technology is not merely an additional tool but an integral element in producing graduates who are competent, adaptive, and ready to face the challenges of the digital era. The limitations of this study are unstable internet connection, long time needed, and limited facilities. Meanwhile, to overcome these limitations, we can provide facilities with adequate internet access, conduct further research with a longer period to evaluate the long-term effects of the learning media, and provide adequate facilities in schools. By overcoming these limitations, it is hoped that the results of research on the effectiveness of Powtoon and PowerPoint learning media with a contextual teaching approach can be more accurate and can be applied more widely.

4. CONCLUSION

The results of this study show that, there is no significant difference in the effectiveness of student learning using Powtoon and PowerPoint with a contextual teaching approach. Therefore, the hypothesis proposed in this research cannot be rejected. In this context, it can be concluded that both the use of PowToon and PowerPoint with a contextual teaching approach contribute equally to improving

student learning outcomes. Both learning media are capable of providing effective learning experiences and supporting the implementation of contextual learning approaches. Although there is no significant difference between them, further research can explore other variables that may affect the effectiveness of learning, such as students' learning styles, level of engagement, or other contextual factors. Additionally, further research can also expand the scope of learning materials and involve a larger sample to enhance the generalizability validity of the research results.

5. REFERENCES

Aisyah, N., Zahro, L., & Jannah, M. (2023). Penerapan Video Pembelajaran Animasi Dalam Meningkatkan Minat Belajar Ski. *Jurnal Manajemen Dan Pendidikan Islam*, *3*(4), 2503–3506. https://ejournal.penerbitjurnal.com/index.php/JMPI/article/view/341.

Andriana, E., Rokmanah, S., & Nurhazizah. (2023). Pengaruh reward terhadap motivasi belajar peserta didik di kelas 1 sdn cinanggung. *Didaktik : Jurnal Ilmiah PGSD FKIP Universitas Mandiri*, *9*(5), 2456–2472. https://doi.org/10.36989/didaktik.v9i5.2204.

Ardita, A., Pratama, S., Maulana, R. A., Hudi, I., & Wahyuni, S. (2024). *Media dan Teknologi Pembelajaran PPKn dalam Memenuhi Tujuan dan Fungsi Pendidikan Kewarganegaraan*. *3*(1). https://doi.org/10.59581/garuda.v2i3.4000.

Ariyanto, R., Kantun, S., & Sukidin, S. (2018). Penggunaan Media Powtoon Untuk Meningkatkan Minat Dan Hasil Belajar Siswa Pada Kompetensi Dasar Mendeskripsikan Pelaku-Pelaku Ekonomi Dalam Sistem Perekonomian Indonesia. *JURNAL PENDIDIKAN EKONOMI: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi Dan Ilmu Sosial*, *12*(1), 122. https://doi.org/10.19184/jpe.v12i1.7622.

Arosyad, M., Jazeri, M., Maunah, B., & Choiruddin. (2021). The Development of English E-Modules Based on Multicultural and Contextual Teaching Learning Approach to Improve Student Learning Outcomes. *International Conference on Islam, Law, and Society (INCOILS)*, *1*(42), 353–362. https://www.researchgate.net/publication/366424375_The_Development_of_English_E-Modules_Based_on_Multicultural_and_Contextual_Teaching_Learning_Approach_to_Improve_Student_Learning_Outcomes.

Ayu, D. G., Triwoelandari, R., & Fahri, M. (2019). Media Pembelajaran Powtoon Terintegrasi Nilai-Nilai Agama pada Pembelajaran IPA untuk Mengembangkan Karakter. *Al-Adzka: Jurnal Ilmiah Pendidikan Guru Madrasah Ibtidaiyah*, *9*(2), 65. https://doi.org/10.18592/aladzkapgmi.v9i2.3088.

Fadhiyah Haifani, M., Susilaningsih, & Muhtar. (2023). the Use of Videoscribe Learning Media on Students' Critical Thinking Ability in Basic Accounting Learning. *International Journal of Education and Social Science Research*, *06*(02), 171–182. https://doi.org/10.37500/ijessr.2023.6216.

Fifit, D. F., & Handayani, S. L. (2021). Pengembangan Media Pembelajaran Video Animasi En-Alter Sources Berbasis Aplikasi Powtoon Materi Sumber Energi Alternatif Sekolah Dasar. *Jurnal Basicedu*, *5*(4), 2530–2540. https://doi.org/10.31004/basicedu.v5i4.1229.

Firmadani, F. (2020). Media Pembelajaran Berbasis Teknologi Sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0. *Prosiding Konferensi Pendidikan Nasional*, *2*(1), 93–97. http://ejurnal.mercubuana-yogya.ac.id/index.php/Prosiding_KoPeN/article/view/1084.

Hasbullah, H., & Suhra, S. (2021). Studi Tentang Prestasi Belajar Pai Alumni Tk-Tpa Pada Siswa Smp Pesantren Putri Al-Manawwarah Desa Panyili Kec. Palakka Kab. Bone. *AL-QAYYIMAH: Jurnal Pendidikan Islam*, *4*(1), 1–24. https://doi.org/10.30863/aqym.v4i1.1560.

Intaniasari, Y., & Utami, R. D. (2022). Menumbuhkan Budaya Membaca Siswa Melalui Literasi Digital dalam Pembelajaran dan Program Literasi Sekolah. *Jurnal Basicedu*, *6*(3), 4987–4998. https://doi.org/10.31004/basicedu.v6i3.2996.

Kiki Yuni Murtiyastuti. (2022). Pengaruh Media Powtoon Dalam Pembelajaran Teks Laporan Hasil Observasi Siswa Kelas Vii Smpn 1 Krembung. *Journal of Education and Learning Sciences*, *2*(2), 68–76. https://doi.org/10.56404/jels.v2i2.37.

Lovisia, E., Firdaus, F., & Amin, A. (2023). Media Pembelajaran Fisika Berbasis Powtoon dengan Pendekatan Kontekstual untuk Mengukur Kepraktisan dan Keefektifan Siswa kelas X SMA Muhammadiyah 2 Tugumulyo. *Science and Physics Education Journal (SPEJ)*, *6*(2), 79–87. https://doi.org/10.31539/spej.v6i2.6979.

Maharani, S., & Rusnilawati. (2023). Efektivitas Model Pembelajaran Problem Based Learning Melalui Media Ppt Interaktif Dalam Meningkatkan Motivasi Dan Hasil Belajar Materi Nilai Mata Uang Siswa Kelas Iv Sd Negeri 1 Buntalan. *Journal of Progressive Science and Mathematics*, *01*, 36–48. https://afeksi.id/journal3/index.php/empiris/article/download/64/61.

Minimnya, A., Kuliah, M., Pembelajaran, E., Indonesia, S., Teaching, C., Kuliah, M., Pembelajaran, E.,

Indonesia, S., Teaching, C., Kuliah, M., Pembelajaran, E., Indonesia, S., Bahasa, P., Indonesia, S., Teaching, C., Kuliah, M., Pembelajaran, E., Indonesia, S., Bahasa, E. P., & Indonesia, S. (2021). *No Title*. *November*, 55–61. https://doi.org/10.37081/ed.v8i4.2084.

Misbahudin, D., Rochman, C., Nasrudin, D., & Solihati, I. (2018). Penggunaan Power Point Sebagai Media Pembelajaran: Efektifkah? *WaPFi (Wahana Pendidikan Fisika)*, *3*(1), 43. https://doi.org/10.17509/wapfi.v3i1.10939.

Muhali. (2018). Arah Pengembangan Pendidikan Masa Kini Menurut Perspektiv Revolusi Industri 4.0. *Seminar Nasional Lembaga Penelitian Dan Pendidikan (LPP) Mandala*, *September*, 1–14. http://dx.doi.org/10.1234/.v0i0.425.

Mulyana, T. D., Wahyuni*, S., & Rusdianto, R. (2023). Development of Powtoon-Based Animated Videos to Improve Critical Thinking Skills Middel School Students In Science Learning. *Jurnal IPA & Pembelajaran IPA*, *7*(2), 145–155. https://doi.org/10.24815/jipi.v7i2.30066.

Ngenda, F. V., Ajizah, A., & Amintarti, S. (2021). Pengembangan Media Pembelajaran Berbasis Video Animasi Powtoon Pada Konsep Tumbuhan Lumut Dan Paku-Pakuan Kelas X Sma. *Quantum: Jurnal Inovasi Pendidikan Sains*, *12*(2), 136. https://doi.org/10.20527/quantum.v12i2.10347.

Pratiwi, N., Sompotan, A., & Lolowang, J. (2023). *Terhadap Hasil Belajar Siswa Pada Materi Tekanan Zat Di Smp*. *4*(1), 91–97. https://doi.org/10.53682/charmsains.v4i2.250.

Primasari, D. A. G., Dencik, & Imansyah, M. (2019). Pendidikan Karakter Bagi Generasi Masa Kini. *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas Pgri Palembang 12 Januari 2019*, 1100–1118.https://jurnal.univpgri-palembang.ac.id/index.php/Prosidingpps/article/view/2672.

Purbaningrum, Y. E., & Aman, A. (2023). The Effectiveness of Powtoon Audio-Visual Media-based PBL on Historical Learning Motivation. *AL-ISHLAH: Jurnal Pendidikan*, *15*(2), 2025–2033. https://doi.org/10.35445/alishlah.v15i2.3644.

Purwanti, L., Widyaningrum, R., & Melinda, S. A. (2020). Analisis Penggunaan Media Power Point dalam Pembelajaran Jarak Jauh pada Materi Animalia Kelas VIII. *Journal Of Biology Education*, *3*(2), 157. https://doi.org/10.21043/jobe.v3i2.8446.

Qurrotaini, L., Sari, T. W., Sundi, V. H., & Nurmalia, L. (2020). Efektivitas Penggunaan Media Video Berbasis Powtoon dalam Pembelajaran Daring. *Seminar Nasional Penelitian LPMM UMJ*, 1–7. https://jurnal.umj.ac.id/index.php/semnaslit/article/view/7869.

Ramdani, N. S., Nugraha, H., & Hadiapurwa, A. (2021). Potensi Pemanfaatan Media Sosial Tiktok Sebagai Media Pembelajaran Dalam Pembelajaran Daring. *Akademika*, *10*(02), 425–436. https://doi.org/10.34005/akademika.v10i02.1406.

Rejeki, R., Adnan, M. F., & Siregar, P. S. (2020). Pemanfaatan Media Pembelajaran pada Pembelajaran Tematik Terpadu di Sekolah Dasar. *Jurnal Basicedu*, *4*(2), 337–343. https://doi.org/10.31004/basicedu.v4i2.351.

Saleh, A. R. (2022). Dimensi Keberagamaan dalam Pendidikan. *Jurnal Jendela Pendidikan*, *2*(04), 580–590. https://doi.org/10.57008/jjp.v2i04.327.

Studi, P., Pendidikan, T., Sultan, U., & Tirtayasa, A. (2020). *PENGEMBANGAN MEDIA VIDEO BERBASIS POWTOON PADA MATA PELAJARAN IPA DI KELAS V Yani Wulandari *, Yayat Ruhiat , Lukman Nulhakim*. *8*, 269–279. https://doi.org/10.24815/jpsi.v8i2.16835.

Sulaiman, S., & Rahmayani, M. (2023). Pengaruh Media Powtoon dalam Mata Pelajaran Pendidikan Agama Islam terhadap Hasil Belajar Siswa Kelas VII. *Islamika*, *5*(1), 57–70. https://doi.org/10.36088/islamika.v5i1.2361.

Tianingrum, N. A., & Nurjannah, U. (2020). Pengaruh Teman Sebaya Terhadap Perilaku Kenakalan Remaja Sekolah Di Samarinda. *Jurnal Dunia Kesmas*, *8*(4), 275–282. https://doi.org/10.33024/jdk.v8i4.2270.

Tiwow, D., Wongkar, V., Mangelep, N. O., & Lomban, E. A. (2022). Pengaruh Media Pembelajaran Animasi Powtoon Terhadap Hasil Belajar Ditinjau dari Minat Belajar Peserta Didik. *Journal Focus Action of Research Mathematic (Factor M)*, *4*(2), 107–122. https://doi.org/10.30762/factor_m.v4i2.4219.

Wirnawa, K., & Sukma Dewi, P. (2022). Efektivitas Media Pembelajaran Power Point Untuk Meningkatkan Hasil Belajar Siswa Sma Negeri 1 Gedongtataan Di Era Pandemi Covid 19. *Jurnal Ilmiah Matematika Realistik (JI-MR*, *3*(2), 109–113. https://doi.org/10.33365/ji-mr.v3i2.2287.