

TEACHERS' STRATEGIES IN THE USE OF DIGITAL MEDIA IN STUDENT LEARNING

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Abstrak

Pemanfaatan media digital dalam pembelajaran PAI menjadi salah satu upaya untuk menghadirkan pengalaman belajar yang lebih menarik, interaktif, dan mudah dipahami. Namun, berdasarkan observasi di SMP Negeri 4 Klari Karawang, penggunaan media digital dalam pembelajaran PAI masih diterapkan secara situasional dan belum berjalan optimal, sehingga berdampak pada kurangnya fokus dan antusias siswa dalam mengikuti pembelajaran. Penelitian ini bertujuan untuk mengidentifikasi strategi guru PAI dalam memanfaatkan media digital, wujud penerapannya dalam kegiatan pembelajaran, dan adanya faktor pendukung dan penghambat dalam upaya memperkuat hasil belajar siswa. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan jenis studi kasus. Data diperoleh melalui observasi, wawancara, dan dokumentasi yang melibatkan guru PAI, kepala sekolah, bagian sarana dan prasarana, serta siswa kelas IX. Hasil penelitian mengungkapkan bahwa guru memanfaatkan media digital berupa PowerPoint, video pembelajaran, gambar, dan proyektor untuk menyampaikan materi secara lebih menarik dan mudah dipahami. Penggunaan media tersebut dipadukan dengan strategi pembelajaran aktif seperti diskusi, tanya jawab, inquiry, dan problem solving, sehingga siswa menjadi lebih fokus, aktif, dan antusias dalam proses pembelajaran. Faktor pendukung meliputi kesiapan guru, dukungan pihak sekolah, dan antusias siswa, sedangkan faktor penghambat mencakup keterbatasan fasilitas serta kemampuan penggunaan teknologi yang belum merata di kalangan guru. Dengan demikian, pemanfaatan media digital dalam pembelajaran PAI terbukti mampu membantu guru menciptakan pembelajaran yang lebih efektif dan menarik, sekaligus mendukung penguatan hasil belajar siswa.

Kata Kunci: Pembelajaran Digital, Strategi Pembelajaran, Teknologi Pendidikan

Abstract

The use of digital media in PAI learning is one of the efforts to provide a more interesting, interactive, and easy-to-understand learning experience. However, based on observations at SMP Negeri 4 Klari Karawang, the use of digital media in PAI learning is still applied situationally and has not run optimally, resulting in an impact on the lack of focus and enthusiasm of students in participating in learning. This study aims to identify PAI teachers' strategies in utilizing digital media, the form of its application in learning activities, and the existence of supporting and inhibiting factors in an effort to strengthen the learning outcomes. This study uses a descriptive qualitative approach with a case study type. Data were obtained through observations, interviews, and documentation involving PAI teachers, school principals, facilities and infrastructure, and grade IX students. The results of the study revealed that teachers used digital media in the form of PowerPoint, learning videos, images, and projectors to convey material in a more interesting and easy-to-understand manner. The use of these media is combined with active learning strategies such as discussions, questions and answers, inquiry, and problem solving, so that students become more focused, active, and enthusiastic in the learning process. Supporting factors include teacher readiness, school support, and student enthusiasm, while inhibiting factors include limited facilities and uneven technology use ability among teachers. Thus, the use of digital media in PAI learning has been proven to be able to help teachers create more effective and interesting learning, while supporting the strengthening of student learning outcomes.

Keywords: digital learning, learning strategies, educational technology.

Introduction

The development of digital technology has changed the way students learn, obtain information, and interact in daily life. This condition requires the world of education to provide learning that is more interactive, interesting, and in accordance with the characteristics of today's digital generation. Learning that still relies on lecture methods tends to make students easily lose focus and are less actively involved in the learning process (Afifah, 2016) Therefore, the use of digital media is one of the important steps to create a more effective, contextual, and meaningful learning process for students. The presence of digital media also opens up opportunities for teachers to present material in a more varied way through learning videos, interactive presentations, images, and various other digital learning resources. That way, the learning process does not only focus on delivering material, but also encourages active involvement of students during learning activities.

Various studies prove that the use of digital media in Islamic Religious Education learning has a positive impact on students' learning processes and outcomes (Sindy et al., 2025) The use of digital media is able to increase students' active participation while supporting the development of critical and creative thinking skills in PAI learning (Maulana et al., 2025) The use of learning videos, interactive presentations, and digital platforms can boost students' motivation, engagement, and understanding of PAI materials (Sahyan et al., 2025) In addition, the selection of learning technology-based media that is in accordance with the characteristics of the material and students is able to create a more effective and interesting atmosphere (Supriyono, 2018) The strategy of using digital media in PAI learning not only increases student involvement, but also supports the formation of Islamic character (Yuliani, 2024) Digital media can enrich learning resources and help teachers present more contextual and collaborative learning.

SMP Negeri 4 Klari Karawang is one of the schools that has utilized digital media in PAI learning. Teachers use media such as PowerPoint, learning videos, pictures, and projectors to facilitate the delivery of material in the classroom. However, based on initial observations, the use of digital media is still situational and has not been applied consistently in every meeting. In addition, there are still students who lack focus and lack enthusiasm when learning takes place. This condition shows that the use of digital media in PAI learning has not been fully able to create an active and optimal learning atmosphere. This situation is interesting to study because it shows that there is a gap between the potential of digital media and the practice of its application in the field. On the other hand, grade IX students are a group that is quite familiar with digital technology in daily life, so digital media-based learning should be an effective means to increase their involvement and understanding of PAI materials. Therefore, the right strategy is needed from teachers so that digital

media not only functions as a complement, but is really able to support the strengthening of student learning outcomes.

Although research on digital media in PAI learning has been carried out quite a lot, most of it still focuses on the influence of digital media on learning motivation or learning quality in general. Research that specifically discusses the strategies of PAI teachers in utilizing digital media to strengthen student learning outcomes, especially at the junior high school level, is still relatively limited. In addition, studies that discuss the form of application of digital media and its supporting and inhibiting factors in the context of PAI learning in schools have also not been explored in depth. Therefore, this study is here to fill this gap through the study of PAI teachers' strategies in utilizing digital media in the learning of grade IX students at SMP Negeri 4 Klari Karawang.

In addition to learning strategies, this study also uses digital media theory in education. The use of technology-based facilities in the world of education aims to facilitate the delivery of materials. The presence of digital technology is designed to make the learning atmosphere more dynamic, communicative, and accelerate student understanding. Students in the digital era tend to be more interested in learning that utilizes technology, because they are used to using digital devices in their daily lives (Andi Tejawati & Adab, 2025) This opinion is strengthened by Rukajat et al. who stated that digital media helps teachers adapt learning to various student learning styles through the presentation of materials that are more visual, audio-visual, and interactive. In this study, digital media theory is used to analyze the form of digital media use by PAI teachers, such as the use of PowerPoint, learning videos, images, and projectors in supporting material delivery. This theory is also the foundation for understanding the supporting and inhibiting factors for the use of digital media in schools, both related to facilities, teacher readiness, and student conditions during the learning process.

This research also refers to the theory of learning outcomes based on the Bloom Taxonomy as a basis for understanding the changes in students' abilities after participating in the learning process. Bloom divides learning outcomes into three domains, namely cognitive, affective, and psychomotor. However, this study focuses more on the cognitive realm because it is directly related to students' ability to understand, remember, and apply PAI learning materials. In the revision of Bloom's Taxonomy, the cognitive realm includes the ability to remember, understand, apply, analyze, evaluate, and create. This theory is used to see the extent to which the use of digital media can help students understand PAI material better, while increasing their focus, attention, and involvement in the learning process. Thus, Bloom's Taxonomy is the foundation for interpreting the strengthening of

student learning outcomes through the use of digital media applied by PAI teachers at SMP Negeri 4 Klari Karawang.

The novelty in this study lies in the focus of the study that connects PAI teachers' strategies, the use of digital media, and the strengthening of student learning outcomes directly in the context of PAI learning at the junior high school level. Previous research generally only discussed the use of digital media, learning strategies, or learning outcomes separately. Meanwhile, this study highlights how PAI teachers combine digital media with active learning strategies such as discussions, questions and answers, inquiry, and problem solving to create more interesting and effective learning. In addition, this study also presents an analysis of the supporting and inhibiting factors of digital media use based on real conditions in schools, thus providing a more contextual picture of the application of digital media in Islamic Religious Education learning.

Research Methods

This research applies a qualitative approach designed by a case study to explore in depth the phenomenon that is taking place in real conditions in the field. This approach was chosen because the research focuses on the meaning of a phenomenon described in a narrative way, qualitative research is used to interpret various social phenomena in depth and comprehensively (Supandi, 2025) The method used is a descriptive method, which is an approach that aims to describe the condition of a phenomenon in a systematic, factual, and accurate (Sugiyono, 2013) In the context of this study, the method is used to describe the strategies of Islamic Religious Education teachers in utilizing digital media as an effort to strengthen student learning outcomes. The case study design was chosen because it allows researchers to examine a case in depth in a limited context. A case study is a study that uses various data sources to investigate real-life phenomena. Case studies focus on an in-depth understanding of a specific case in a specific context. Thus, this design is considered appropriate because it is able to provide a complete picture of the process of using digital media in the learning of Islamic Religious Education in schools (Supandi et al., 2024)

This research was carried out at SMP Negeri 4 Klari which is located in Karawang Regency, West Java. The selection of the location was carried out purposively, namely based on the suitability between the research focus and the conditions in the field. Based on initial observations, SMP Negeri 4 Klari has sufficient learning facilities available and has been used in the learning process, especially in the subject of Islamic Religious Education. However, the use of these facilities has not been carried out evenly and optimally, both due to the limited number of certain facilities and differences in the strategies applied by teachers in learning. This condition is the main consideration in choosing a research location. Participants in this study consist of Islamic Religious Education teachers, teachers

responsible for school facilities and infrastructure, and grade IX students. The selection of participants was carried out purposively because they have direct involvement in the learning process and the use of school facilities, so they are considered able to provide relevant and in-depth information according to the focus of the research.

Data collection in this study was carried out through three main techniques, namely interviews, observations, and documentation. These three techniques were used in complementarity to obtain more complete and in-depth data. Interviews were conducted with Islamic Religious Education teachers, facilities and infrastructure teachers, and grade IX students. The techniques used included structured and semi-structured interviews. Structured interviews were used to obtain systematic data related to strategies for the use of digital media in learning, while semi-structured interviews were used to explore students' experiences and views more flexibly according to field conditions. In addition to interviews, observations were also carried out directly in grade IX of SMP Negeri 4 Klari. This observation aims to witness in real life how the learning process of Islamic Religious Education takes place, especially in terms of the use of digital media and student involvement during learning activities. Furthermore, documentation is used to complete research data through various archives and supporting evidence such as photos of learning activities, school records, and other relevant documents. This documentation data serves to strengthen the results of interviews and observations so that the data obtained is more valid and accountable.

The data analysis in this study was carried out qualitatively using the Miles and Huberman interactive model which took place continuously since the data collection process in the field. This analysis includes three main stages, namely data reduction, data presentation, and conclusion drawn. In the data reduction stage, the researcher sorts the data obtained from the field by focusing on information relevant to the focus of the research, namely teachers' strategies in the use of digital media and their impact on student learning outcomes. Irrelevant data is simplified to make it easier to understand.

The next step is the presentation of data, yesit organizes the data that has gone through the reduction process into the form of a narrative that is systematically arranged. This presentation is intended to make it easier for researchers to read the relationship between one data and another, so that the picture of the phenomenon being studied can be seen more clearly. The last step is drawing conclusions, which is an effort to interpret the entire data that has been analyzed. In this study, the drawing of conclusions is not carried out at once at the end of the research, but runs gradually according to the ongoing data collection process, then re-tested for conformity with the conditions found in the field.

The validity of the data in this study refers to the concept of trustworthiness put forward by Lincoln and Guba, which includes four aspects, namely credibility, transferability, dependability, and confirmability (Denzin & Lincoln, 2009). Credibility is carried out through source triangulation and technique triangulation. Source triangulation is carried out by comparing information from Islamic Religious Education teachers, facilities and infrastructure teachers, and students. Meanwhile, technique triangulation is carried out by combining the results of interviews, observations, and documentation so that the data obtained is more accurate. Transferability is carried out by presenting a detailed and in-depth description of the research so that it allows readers to understand the context of the research clearly and can consider its application to other similar situations.

Dependability is fulfilled by ensuring that the entire research process is carried out systematically and well documented so that it can be traced back by other researchers. Meanwhile, confirmability is carried out by ensuring that all research findings are truly sourced from field data, not from the subjectivity of the researcher, which is strengthened through the triangulation process and available documentation.

Research Findings and Discussion

The results of this research were obtained through interviews, observations, and documentation conducted at SMP Negeri 4 Klari Karawang. The data collected centered on the use of digital media in Islamic Religious Education learning grade IX. Based on the analysis of field data, the research findings were grouped into several main themes that described teacher strategies, learning implementation, as well as supporting and inhibiting factors in the use of digital media in the classroom. All findings were presented descriptively based on the real conditions that took place during the learning process.

Teachers' Strategies in the Utilization of Digital Media in PAI Learning

Research reveals that Islamic Religious Education teachers at SMP Negeri 4 Klari have integrated digital media as part of the learning strategy in grade IX. The use of digital media begins with a learning plan prepared before teaching and learning activities begin. Teachers first prepare learning tools, ranging from teaching materials, media to be used, to other supporting devices, so that the learning process can run according to the goals that have been set. In its implementation, teachers utilize various types of digital media such as PowerPoint, learning videos, images, and other visual media that are tailored to the material to be taught. The selection of learning media is adjusted to the characteristics of the material to be delivered and the condition of students in the classroom. The material is then packaged in a more attractive and communicative display so that students can more easily understand the learning content and can follow the learning process more optimally.

Based on the results of interviews with Islamic Religious Education teachers in grade IX, the teacher said that preparation before learning includes preparing materials and media, as well as ensuring that devices such as projectors can function properly. Teachers also design learning activities in the form of questions and interactive activities to enliven the learning process in the classroom. In addition, the school also provides real support for the use of digital media in learning. This support is manifested through training on the use of digital media for teachers, the provision of learning facilities, and setting a schedule for the use of devices so that they can be used alternately by other teachers. This condition shows that the use of digital media is not solely the responsibility of teachers in the classroom, but is also supported by school policies in order to improve the quality of learning as a whole. The findings on this theme are in line with the view that a teacher's strategy that is planned and supported by school institutions is the key to the success of the use of digital media in learning. Teachers who are able to combine careful planning with the support of available facilities tend to be more successful in creating effective and engaging learning for students.

Implementation of Digital Media in Learning Activities in the Classroom

The findings of the study show that digital media is applied directly in Islamic Religious Education learning activities in grade IX. Teachers use projectors to display learning materials in PowerPoint format and learning videos. The use of this media helps teachers convey material in a clearer, more structured, and easily understood manner by students. In learning activities, teachers do not solely focus on delivering material through digital media, but also maintain interaction with students. These interactions are built through questions and answers activities, discussions, and assignments that involve students' active participation in the classroom. Thus, digital media functions as a tool to clarify the material, not as a substitute for the role of teachers in the learning process.

Based on the results of observations, the teacher seemed to use a projector to display the material in front of the class. Students listened to the material presented and recorded the important points conveyed by the teacher. The learning process took place with the help of visual media that made it easier for students to understand the material more concretely. The results of the interviews with students revealed that learning with digital media provides a different learning experience compared to learning that only relies on verbal explanations. Students stated that learning became more interesting because of the presence of images, animations, and videos displayed during the learning process. They also revealed that the material was easier to understand because they could watch examples directly through the media used by the teacher in class.

More than that, students also feel that the use of digital media creates a more fun and less boring classroom atmosphere. This is reflected in the increase in student involvement during learning, such

as paying close attention to the teacher's explanations, responding to questions asked, and actively participating in various activities provided throughout the learning process. These findings confirm that the implementation of digital media combined with active learning strategies such as questions and answers and discussions is able to encourage more optimal student involvement. An interactive and fun learning atmosphere also contributes to increasing students' focus and enthusiasm in participating in Islamic Religious Education learning.

Supporting and Inhibiting Factors in the Utilization of Digital Media

The findings of the study show that the use of digital media in Islamic Religious Education learning is supported by the growing availability of school facilities. These facilities include projectors, laptops, and various other learning devices that teachers use in the teaching and learning process in the classroom. In addition, there is also the development of facilities in the form of Interactive Flat Panels (IFP) which further strengthen the capacity of digital-based learning in schools. The school also provides support in the form of training for teachers and scheduling the use of facilities so that they can be used alternately. This step was taken because the number of available devices is still limited, so good management is needed so that all teachers can use them according to their respective learning needs.

However, this study also found a number of obstacles in the use of digital media in the classroom. The obstacles found include the limited number of devices that are not evenly distributed in each classroom, technical problems in devices such as projectors that do not function optimally, and limited access to technology for some students. Some students do not have personal devices such as mobile phones, coupled with limited quotas and internet networks that also affect the smooth flow of digital-based learning. In addition, technical obstacles such as problematic devices or unclear projector displays also often interfere with the learning process. These conditions require teachers to be more adaptive in adapting the use of digital media to the real situation in the classroom so that learning can continue to take place effectively. Despite these limitations, the learning process continues to run by optimizing the available media as best as possible. These findings also confirm that the success of the use of digital media in learning is not only determined by the availability of technology, but also by the ability of teachers to manage existing limitations creatively and in a solution.

Conclusion

This research shows that the use of digital media in Islamic Religious Education learning in grade IX of SMP Negeri 4 Klari Karawang makes a real contribution to the learning process and

strengthens student learning outcomes. The strategy implemented by teachers begins with learning planning that is tailored to the material, student conditions, and learning objectives to be achieved. In its implementation, teachers use various digital media such as PowerPoint, learning videos, images, and projectors combined with active learning methods such as questions and answers, discussions, inquiries, and problem solving. This combination makes learning more interactive while encouraging more active student involvement in the classroom. In addition, the application of digital media in learning not only functions as a tool for delivering material, but also as a means to clarify concepts so that they are easier for students to understand. The presentation of materials in visual and audio-visual forms helps students capture information more concretely, thus having an impact on increasing understanding, especially in the cognitive aspect. This emphasizes that digital media plays an important role in supporting the effectiveness of Islamic Religious Education learning. Furthermore, the success of the use of digital media is also supported by a number of supporting factors, such as teachers' readiness to operate learning technology, facility and training support from schools, and students' enthusiasm in participating in digital-based learning. However, there are still several obstacles faced, including limited facilities that must be used interchangeably, uneven technological capabilities among teachers, and student conditions that sometimes easily lose focus during learning. Despite these limitations, teachers still try to adapt learning strategies to existing conditions through simple but effective media selection, optimal use of facilities, and provision of a variety of activities so that the classroom atmosphere remains conducive and enjoyable. Thus, it can be concluded that the use of digital media in Islamic Religious Education learning not only improves the quality of the teaching and learning process, but also contributes to creating a more active, interesting, and meaningful learning atmosphere for students.

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