



Utilization of Digital Learning Media to Increase Students' Learning Interest: A Qualitative Study in Grade III of Islamic Elementary School

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ABSTRACT

This study aims to analyze the role of digital learning media in increasing students' learning interest at the elementary school level, particularly in Islamic Elementary Schools (MI). The background of this study is based on the need to present a more interactive, engaging learning process that is in accordance with the developmental characteristics and life context of students. Theoretically, this study refers to the Multimedia Learning Theory proposed by Richard E. Mayer which emphasizes the importance of integrating visual and audio elements in improving learning comprehension, as well as the ARCS motivation model by John M. Keller which includes aspects of attention, relevance, confidence, and satisfaction in increasing students' learning motivation. This study uses a descriptive qualitative approach with data collection techniques through observations of the learning process in the classroom, interviews with teachers and students, and visual documentation as supporting data. Data analysis was conducted to describe in depth the impact of the use of digital learning media on students' learning interest and participation. The results of the study indicate that the use of digital learning media has several positive impacts, including increased student attention during the learning process, presentation of materials that are more contextual and easy to understand, increased student courage to actively participate in learning activities, and the growth of a sense of enjoyment and motivation to learn. Digital media such as animated videos, interactive quizzes, and educational games have been proven to create more engaging and participatory learning experiences. However, the implementation of digital learning media still faces several technical challenges, such as limited supporting devices and teacher competency in utilizing learning technology. Therefore, improving teacher competency through ongoing training and providing adequate facilities and infrastructure is necessary to ensure optimal and sustainable use of digital learning media to increase student learning interest.

INTRODUCTION

The digital world has brought significant changes to many aspects of human life, including education. A new paradigm in the educational process has emerged as a result of rapid advancements in information and communication technology. This development is particularly related to the implementation of learning processes that take place in the classroom. Digital transformation in recent years has had a significant influence on the field of education. Digital media has encouraged changes in teaching and learning methods, shifting from conventional approaches to more active and interactive learning. Digital learning media has become an important tool in improving the effectiveness and efficiency of the teaching and learning process. Media such as learning videos, interactive applications, educational animations, and online learning platforms not only make the delivery of learning materials easier but also enhance creativity and attractiveness of the content, thereby motivating students to learn more actively and participate in the learning process (Rahmawati, 2020).



Learning media that previously consisted only of pictures, posters, or simple teaching aids have now developed into animated videos, educational applications, learning games, and digital platforms capable of increasing student engagement. These innovations provide more interesting learning experiences through a combination of visual, audio, and interactive elements, which can stimulate students' focus and motivation to learn (Arsyad, 2020). Furthermore, the transformation of digital media has shifted learning to become more student-centered, providing opportunities for students to explore learning materials independently and actively according to their cognitive development characteristics (Sanjaya, 2021). Therefore, the utilization of digital learning media has become an important strategy for increasing students' interest in learning, particularly at the elementary school level.

The use of digital-based media in learning at madrasahs serves as a means to increase students' learning interest and learning outcomes. This can be seen from students' enthusiasm, motivation, and interest in participating in classroom learning activities. However, one of the challenges in classroom learning is how to maintain and enhance students' interest in the material being taught amid the rapid flow of information and the appeal of digital entertainment that attracts their attention. In the current digital era, information technology has become an integral part of daily life, including the learning process. The utilization of technology in learning at madrasahs can assist teachers in developing learning that is oriented toward student development and aligned with cognitive, affective, and psychomotor development needs. In addition, the use of information technology can facilitate the learning process, help obtain data or information, and deliver learning materials more effectively. Teachers must be prepared to face the rapid development of information and communication technology and must have the ability to utilize these technologies in teaching. The use of information technology in madrasah learning is essential because it can help teachers guide students in achieving educational goals.

Learning media plays a very vital role in the learning process at the elementary level such as in elementary schools and Madrasah Ibtidaiyah (MI), particularly in third grade, because students at this stage are in the concrete cognitive development stage. Therefore, they require visual and auditory stimuli as well as real learning experiences to understand concepts more effectively. The use of learning media helps teachers present materials in an interesting, systematic, and easily understandable manner, thereby minimizing student boredom and increasing participation during learning activities. Appropriate learning media can foster curiosity, improve concentration, and encourage students to actively engage in learning (Purwanto, 2019). In addition, learning media serves as a bridge between abstract concepts and real-world experiences, enabling students to achieve deeper and more meaningful understanding (Arsyad, 2020). Therefore, at the elementary education level, the use of learning media is not merely complementary but a necessity to support the achievement of learning objectives optimally.

Learning media also has a significant influence on students' learning interest because it can create a more engaging, challenging, and enjoyable learning atmosphere. The presentation of materials through varied media can stimulate students' attention, generate curiosity, and increase their motivation to actively participate in the learning process. When learning media is presented appropriately, students tend to be more focused, enthusiastic, and show higher involvement in classroom learning activities

(Sardiman, 2020). In addition, media that is relevant to students' needs and characteristics can provide meaningful learning experiences that encourage the development of sustained learning interest (Dimiyati & Mudjiono, 2019). Thus, the effective utilization of learning media becomes an important factor in increasing students' learning interest at the elementary school level.

Several studies have shown that the use of digital media in learning has a positive effect on increasing students' interest in learning, especially in building emotional and intellectual engagement with the learning material (Santosa & Aisyah, 2019). Therefore, digital learning media can be an appropriate solution because it is able to present material in dynamic visual forms that are suitable for the characteristics of young learners, such as third-grade students of Madrasah Ibtidaiyah.

Learning interest can be considered an important factor influencing learning success. Students who have a high level of learning interest tend to be more actively involved in teaching and learning activities. Therefore, teachers as learning managers are expected to innovate in creating an ideal, healthy, and enjoyable learning environment. One way to achieve this is by utilizing digital media in the learning process. However, in reality, the use of digital media in Madrasah Ibtidaiyah is still relatively limited. This is caused by several factors, such as limited facilities, lack of teacher training, and low digital competence among educators (Lestari, 2021).

Based on this phenomenon, this study aims to determine the extent to which the use of digital learning media influences students' learning interest, particularly among third-grade Madrasah Ibtidaiyah students. It is expected that this research will provide a clear description of how the utilization of digital media in the learning process can increase students' learning interest. Furthermore, the findings of this study are expected to provide strategic recommendations for innovative and adaptive learning patterns that align with students' needs. Therefore, the results of this research may serve as an alternative reference for educators and policymakers in curriculum development as an effort to improve the quality of learning in the Madrasah Ibtidaiyah environment.

Theoretical Framework

This study utilizes two main theoretical foundations: the concept of learning as expressed by Mayer and the theory of learning interest through the ARCS model developed by John Keller. According to Richard Mayer (2024) in the Cognitive Theory of Multimedia Learning, the brain processes information through two primary channels: the pictorial (visual) channel and the verbal channel. Each channel has limited capacity; therefore, overly dense material can overload working memory and hinder learning. Mayer believes that learning will be more innovative, creative, and effective when teachers integrate video, text, images, and audio.

Mayer elaborates several principles, including: the Multimedia Principle, which means using a combination of pictures and words; the Modality Principle, which suggests using audio so that the visual channel is not overwhelmed; the Coherence Principle, which means avoiding unnecessary or irrelevant materials or visuals; and the Segmenting Principle, which involves presenting materials in short, digestible segments to aid comprehension.

To explain students' learning interest in relation to the influence of digital-based learning methods such as videos and animations, Keller's ARCS theory is used. According to Keller (2017), students' learning interest can be determined by four



components: Attention, Relevance, Confidence, and Satisfaction. In terms of attention, learning media such as videos or animations can effectively capture students' attention on the topic being discussed. From attention, students develop interest because the material is relevant to their daily lives. This interest leads to further exploration, resulting in increased knowledge, which builds confidence and ultimately gives students satisfaction from what they have learned.

RESEARCH METHOD

This study employs a descriptive qualitative approach aimed at identifying, describing, and analyzing phenomena that occur naturally based on real conditions in the field. This approach was chosen because it enables researchers to obtain a deeper and more comprehensive understanding of a phenomenon within its actual context. Through a descriptive qualitative approach, researchers can explore the meanings, experiences, and perspectives emerging from research participants in a more holistic manner. The qualitative approach is particularly suitable because it allows researchers to reveal phenomena holistically by observing natural contexts without manipulating variables (Creswell, 2018).

In the context of this study, this approach is used to gain an in-depth understanding of how the use of digital learning media influences the learning interest of third-grade students in Madrasah Ibtidaiyah (MI). Therefore, the descriptive qualitative approach is considered appropriate because it enables researchers to examine the learning process contextually, including the interactions that occur between teachers, students, and the learning media used in the classroom.

The subjects of this study are third-grade students at Madrasah Ibtidaiyah Assyafi'iyah Keben, who have implemented digital learning media in the learning process. This madrasah was selected as the research location because it has already integrated digital technology into classroom learning and has teachers who actively utilize technology-based learning media. In addition, several teachers from MI Assyafi'iyah were selected as key informants in this study.

Data collection techniques include participatory observation, in-depth interviews, and documentation in order to obtain comprehensive and factual information in accordance with field conditions (Sugiyono, 2021). The validity of the data is ensured through source triangulation and method triangulation to maintain the consistency and credibility of the research findings (Moleong, 2019).

In the data categorization process, the researcher selected relevant information, filtered the data according to the research focus, and grouped the data based on themes, types of media used, student responses, and changes in students' learning interest. The data were then presented in the form of descriptive narratives, and conclusions were drawn based on the analyzed findings (Creswell, 2018).

Through this approach, the study is expected to provide an in-depth description of how digital learning media are utilized and how they contribute to increasing students' learning interest.

RESULTS AND DISCUSSION

Results

Digital Learning Design Principles

Richard E. Mayer mentions several important principles in digital learning that discuss how humans receive and process information. These principles aim to improve the quality of learning through media by considering the visual and auditory channels, cognitive load, and the suitability of the material content.

Review the following table for a better understanding of the principles discussed by Mayer.

Table 1. Learning Design According to Mayer's Theory

Nu	Principle	Understanding	Objective	Application in the Classroom
1	Multimedia Principles	Using a teaching pattern to convey material with a mixture of words (text or spoken) and pictures	Helping students understand visually and verbally	Display diagrams and learning flows while the teacher explains the process.
2	Modality Principle	Using audio to explain or narrate material in support of visuals rather than long text	Able to reduce the brain load in the visual tract	Explain animation by providing sound recordings, not long texts.
3	Coherence Principle	Eliminate all visual or audio elements that are not relevant to the topic of discussion.	Students can focus more on core topics	Remove sound effects or images that are irrelevant to the topic
4	Segmenting Principle	Classify topics or subject matter into short but structured segments	Can reduce students' cognitive load and facilitate understanding	Learning videos are made in 3 frameworks, namely opening/introduction, content, closing.

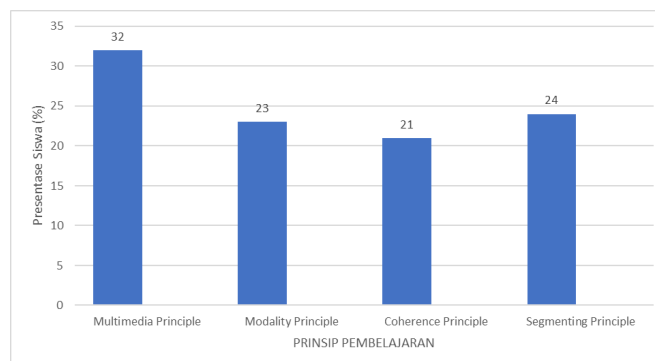


Figure 1. The Influence of Learning Principles on Student Learning Interest

Based on the table above, it can be explained that the Multimedia Principle emphasizes that a combination of visuals, such as images, diagrams, illustrations, and verbal (text or oral explanations) can improve student understanding. Presenting visual and verbal information simultaneously helps students build connections between verbal concepts and visual representations. The Modality Principle recommends using audio narration for visual explanations rather than displaying lengthy text on a screen. This prevents visual overload and allows students to process information through two distinct channels (auditory and visual). The Coherence Principle emphasizes the importance of eliminating irrelevant information or elements, both visual and audio, that can distract students. Relevant and unbiased material keeps students' attention focused on the core learning. The Segmenting Principle encourages dividing material into short, structured segments, allowing students to understand one section before moving on to the next.

Based on data obtained from observations and interviews, the level of contribution of student understanding to learning interest was determined when the learning design used the principles proposed by Mayer. Figure 1 illustrates this.

The diagram above explains that the utilization of digital learning media influences students' learning interest. A total of 32% of students stated that the Multimedia Principle can influence their learning interest, 23% of students said that the Modality Principle can influence their learning interest, 21% of students said that the application of the Coherence Principle can help them focus on learning, and 24% of students stated that the Segmenting Principle is very important to prevent too much cognitive load on students.

1. The Impact of Digital Media Based on ARCS Theory

The impact of digital media in the learning process can genuinely increase students' learning interest. According to Keller (2017), students' learning interest can be determined by Attention, Relevance, Confidence, and Satisfaction. This learning interest can be experienced by students during in-class or out-of-class processes. The following table further explains the research findings related to the impact of digital media reviewed from the ARCS perspective.

Table 2. Digital Media Based on ARCS Theory

ARCS components	Influence of Digital Media	Field Evidence/ Findings	Impact on Learning Interest
Attention	Digital media, for example; animated videos, infographics, and interactive presentations can increase students' focus on the material being taught.	Students can maintain focus for more than 25 minutes, compared to the lecture method, where focus declines after 11-16 minutes.	Cultivate curiosity or a sense of inquiry and involve students actively from the start of the learning process.
Relevance	Learning materials that are packaged according to students' real lives and distributed through digital media can foster students' interest in further learning.	Videos and images show examples of teaching materials related to environmental situations, such as activities at school, home or the local environment.	It can foster interest in learning because students feel that the material is useful and easy to apply in life.
Confidence	Presenting the material in short segments with interactive exercises through learning videos makes students feel capable of understanding the topic.	Students successfully completed the final assignments or practice questions with a higher success rate.	Understanding increases so that students have the courage to ask questions and try new challenges.
Satisfaction	Immediate feedback from quizzes or simulations via digital provides a sense of satisfaction and pride in the achievements obtained.	Students are satisfied when they see significant progress and positive scores from the interactive quizzes they take.	Can motivate students to continue to be actively involved in the next learning process.

The impact of digital learning media developed by John M. Keller that can increase students' learning interest can be achieved through four components: attention, relevance, confidence, and satisfaction.

In the context of digital media-based learning, each of these components receives strong support. First, the attention aspect can be enhanced through digital media such as animated videos, infographics, and interactive presentations, which are capable of

sustaining student focus for longer. Field research shows that students can maintain concentration for more than 25 minutes when learning using this media, while focus tends to decline after 11–16 minutes in the lecture method. Second, relevance emerges when digital material connects with students' real lives, for example, through videos or images showing daily activities at home or in the surrounding environment. This makes the learning feel meaningful and beneficial, so learning interest can be maintained. Third, students' confidence increases when the material is presented in short sections complemented by interactive exercises. This method provides an opportunity for students to understand the topic gradually, which is proven to increase the success rate in final section exercises. The sense of capability that grows from this success makes students more confident in asking questions and attempting new challenges. Finally, satisfaction can be gained through immediate feedback from digital quizzes or simulations. Students feel happy and proud when they see positive scores from the interactive quizzes they participate in, which then motivates them to continue participating in subsequent learning. Thus, digital media designed according to the ARCS principles not only increases learning interest but also creates a pleasant and meaningful learning experience.

2. Integrating Learning Media to Increase Learning Interest

The use of digital media in learning shows a positive increase in students' learning interest. This aligns with the **ARCS Theory** developed by M. Keller. In Keller's explanation, learning media can increase students' motivation and interest in participating in the learning process both inside and outside the classroom. Digital learning media can contribute positively and significantly to the aspect of material presentation and creative assignment design, making it easy for students to understand the taught material. The following table presents the integration of digital learning media usage.

Table 3. Integration of Digital Learning Media

Digital Media	Usage	Observable Indicators of Learning Interest	Impact	Theoretical Integration
Visual-Audio	Using animated videos, infographics, and audio narration.	Focusing on listening and paying attention, and enthusiasm for the lesson.	Adds or increases student attention to the learning process (Attention).	ARCS - Attention; Multimedia Learning in Mayer's theory.
Interaction and engagement	Interaction and Engagement	Online quizzes, digital/virtual simulations, and drag-and-drop activities.	Actively involved in learning, trying digital features, and actively participating in discussions.	ARCS - Confidence, Active Learning
Relevance and Feedback	Integration of material with real-life, daily situations, and digital badges.	Students are motivated to review, repeat learning, and achieve improved results.	Understanding the relevance of the material to life leads to satisfaction (Satisfaction).	ARCS - Relevance & Satisfaction.

Based on the table above, the relationship between the type of digital learning media used, the indicators of students' learning interest, the resulting impact, and its connection to fundamental learning theories is explained. The use of learning media such as animated videos, interactive simulations, infographics, and online learning applications

shows an increase in attention, fosters active involvement, enhances material relevance, builds confidence, and provides satisfaction.

Visual and audio-based learning media, such as animated videos, infographics, and voice narration, can make students more interested from the start of the lesson. The visible indicators of interest are that students focus more on listening to the explanation, and are more involved and enthusiastic in following the lesson. The impact is that students' attention to the material increases. This is consistent with what Keller stated and the Multimedia Learning principle given by Mayer, which suggests that the combination of visuals and audio can strengthen comprehension and motivate students.

If students are more motivated, their involvement in classroom interaction becomes more engaged and communicative. As an indicator of interest, students are more willing to try the features of the learning media, participate in discussions, and dare to express their opinions. During this discussion process, students receive feedback on the material or discussion questions that have relevance to their lives. Thus, the material taught can be understood well and encourages students' learning interest to continue to grow and develop in the teaching and learning process. This also correlates with the Relevance and Satisfaction components in the ARCS model, which emphasize the importance of connecting the material with students' personal goals and needs. Therefore, digital learning media can assist in the comprehension process, strengthen motivation, and cultivate students' learning interest.

To further elaborate on how learning media affects students' learning interest, consider the following integration diagram!



Figure 2. Integration of Learning Media

The diagram above demonstrates the integration of three primary digital learning media, including instructional videos. Visual-Audio achieved the highest score of 90%, demonstrating the effectiveness of instructional videos (animations), infographics, and audio narration in capturing students' attention. Engagement and interaction achieved 86%, demonstrating that interactive media, such as video-based online quizzes and simulation videos, encourage students' interest in further learning. Meanwhile, 84% expressed interest in learning based on the relevance of the learning material to their lives and the provision of feedback, such as digital badges.

Discussion

Research findings indicate that the use of digital learning media for third-grade students at an Islamic elementary school significantly increased their learning interest.

Digital media, designed based on Mayer's principles of multimedia learning, enabled students to process information more effectively through the integration of visual and auditory channels. The use of clear images, animations, and structured narratives helped reduce students' cognitive load, making learning materials easier to understand. Furthermore, presenting the material in short segments helped students grasp concepts gradually and prevented information overload, which can reduce concentration.

Furthermore, the increase in students' learning interest in this study can be explained by Keller's ARCS motivational model, which encompasses aspects of attention, relevance, confidence, and satisfaction. Attention was strengthened through the use of animated videos and interactive visuals that attracted and maintained students' focus throughout the learning process. The relevance aspect was evident in the presentation of material that was linked to students' daily experiences and lives, making learning more meaningful. Meanwhile, self-confidence develops when students actively engage in digital-based learning activities, such as interactive quizzes and educational games.

This discussion also demonstrated that immediate feedback provided through digital quizzes plays a crucial role in enhancing satisfaction in the ARCS model. When students receive immediate results after answering questions, they can immediately determine their level of learning success. This fosters a sense of satisfaction and pride, and increases students' intrinsic motivation to continue participating in learning activities. Thus, fast and clear feedback from digital media not only strengthens conceptual understanding but also reinforces a positive learning experience for students. Overall, the integration of digital learning media creates a more interactive, enjoyable, and learner-centered learning environment. Students demonstrate increased attention, participation, curiosity, and confidence in participating in the learning process. These findings reinforce the view that digital learning media can function not only as a tool for delivering material but also as an effective pedagogical strategy for increasing student motivation and interest in learning at the elementary level.

CONCLUSION

Fundamental Findings

This study shows that the use of digital learning media, particularly learning videos, can significantly increase the learning interest of third-grade students in Madrasah Ibtidaiyah (MI). Visual and audio elements such as animations, infographics, and voice narration were proven to attract students' attention and facilitate their understanding of the learning materials. These findings are consistent with the Multimedia Learning Theory proposed by Richard E. Mayer as well as the ARCS Motivation Model developed by John M. Keller. These frameworks emphasize the importance of presenting learning materials in engaging, relevant, and interactive ways during the learning process. Through the integration of visual and audio elements, students become more interested in the material, actively participate in classroom activities, and demonstrate increased motivation to engage in the learning process.

Implications

The findings of this study imply that the use of digital learning media, especially learning videos, can serve as an effective strategy to enhance students' learning interest at the elementary school or Madrasah Ibtidaiyah level. Teachers are encouraged to integrate visual- and audio-based media into classroom instruction so that learning materials can

be delivered in a more engaging, contextual, and easily understandable manner for students. Furthermore, educational institutions should support the implementation of technology-based learning by providing adequate facilities and professional training for teachers to develop and utilize digital learning media effectively.

Limitations

This study has several limitations. First, the scope of the research is limited to third-grade students in a single Madrasah Ibtidaiyah, which means that the findings cannot yet be broadly generalized to other educational levels or contexts. Second, this study primarily focuses on students' learning interest and does not comprehensively examine the impact of digital learning media on other aspects, such as cognitive learning outcomes, students' critical thinking skills, or collaborative learning abilities.

Future Research

Future studies are recommended to expand the research subjects and locations in order to obtain findings with greater generalizability. In addition, future research may examine more comprehensively the impact of digital learning media not only on learning interest but also on learning outcomes, motivation, and students' higher-order thinking skills. The development and evaluation of other types of digital media—such as interactive learning systems, educational games, or technology-based learning platforms—can also become important areas of focus for future research aimed at improving the quality of teaching and learning processes in schools.

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