

THE INTEGRATION OF DIGITAL TECHNOLOGY IN LEARNING TO ENHANCE STUDENTS' LEARNING MOTIVATION AND ENGAGEMENT AT SDIT RABBANI, BENGKULU CITY

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Abstract

The integration of digital technology in education has become an important strategy for improving the quality of learning and addressing the needs of students in the digital era. This study aims to examine the integration of digital technology in learning and its contribution to students' learning motivation and engagement at SDIT Rabbani, Bengkulu City. The study employed a qualitative descriptive approach. Data were collected through classroom observations, interviews with teachers, and documentation of digital technology use during the learning process. Data analysis involved data reduction, data presentation, and conclusion drawing. The findings indicate that the use of digital technology, including interactive presentations, educational videos, digital learning platforms, and interactive applications, creates a more engaging and varied learning environment. Digital media helps teachers present learning materials more clearly and provides opportunities for students to participate actively in classroom activities. Students demonstrate increased attention, enthusiasm, participation, and willingness to complete learning activities when digital technology is integrated appropriately. Effective implementation requires teachers to possess adequate digital competencies and to select technology based on learning objectives, student characteristics, and available resources. Digital technology integration can support the development of a more interactive, student-centered, and meaningful learning process. The findings suggest that systematic and pedagogically appropriate use of digital technology can contribute positively to students' learning motivation and engagement at SDIT Rabbani, Bengkulu City.

Keywords: *digital technology, learning motivation, student engagement, educational technology, elementary education*

Introduction

Digital technology has become an important part of education in the modern era. The development of technology has changed the way teachers deliver learning materials and

students participate in learning activities. Digital technology provides various opportunities to create learning environments that are interactive, flexible, and engaging. Teachers can utilize digital media such as educational

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videos, interactive presentations, digital learning platforms, and educational applications to support the learning process. The appropriate use of digital technology can make learning activities more varied and relevant to students' needs (Selwyn, 2012).

Elementary education is an important stage in developing students' academic abilities, social skills, character, and digital competencies. Students at the elementary school level generally need learning experiences that are interesting, concrete, and appropriate to their developmental characteristics (Utaminingsih et al., 2023, Sukasih, 2021). Digital technology can provide visual, audio, and interactive experiences that help students understand learning materials. The use of digital media can also provide opportunities for students to explore information and participate actively in classroom activities. Effective technology integration requires teachers to consider students' developmental levels and learning objectives.

Learning motivation plays an important role in determining students' willingness to participate in educational activities. Students with high learning motivation tend to demonstrate greater attention, enthusiasm, persistence, and responsibility in completing learning tasks. Digital technology can create learning experiences that attract students' attention through multimedia

content, interactive activities, educational games, and digital assessments. The variety of digital learning resources can reduce monotonous learning experiences and encourage students to become more interested in learning. Appropriate integration of technology can support teachers in creating learning activities that stimulate students' motivation (Wardani et al., 2020).

Student engagement is also an important aspect of an effective learning process. Engagement refers to students' active involvement in classroom activities, emotional interest in learning, and cognitive effort in understanding learning materials. Digital technology can encourage students to participate through interactive assignments, multimedia content, discussions, educational games, and immediate feedback. Students can become more actively involved when technology is used as a tool for exploration, communication, and problem solving. Meaningful learning activities are needed to ensure that technology contributes to active engagement rather than simply providing entertainment (Harbour et al., 2015).

The successful integration of digital technology depends on the role of teachers in designing and managing technology-supported learning activities (Lakkala et al., 2005). Teachers need to select digital media that are appropriate to learning

objectives, subject matter, and students' characteristics. Teacher competence in using digital technology is important for creating meaningful and effective learning experiences. The availability of technological infrastructure, internet access, digital devices, and supporting facilities also affects the implementation of digital learning. Appropriate planning and classroom management are necessary to ensure that digital technology supports the learning process effectively.

The integration of digital technology in Islamic elementary schools has an additional dimension because learning activities need to support academic development and character formation. Technology can be utilized to provide learning experiences that are innovative while maintaining Islamic values and positive character development. Digital learning materials can be selected and designed to promote responsibility, discipline, cooperation, creativity, and respect. Teachers have an important responsibility to ensure that digital resources are appropriate for students and consistent with the educational values of the school (Jaya et al., 2026). Technology-supported learning can become more meaningful when academic objectives and character development are integrated into classroom activities.

SDIT Rabbani, Bengkulu City, provides a relevant context for

examining the integration of digital technology in elementary education. The implementation of digital technology in the school can provide opportunities to observe how teachers utilize technology during learning activities. Students' responses to digital learning activities can also provide information about their motivation and engagement in the classroom. The school environment offers an opportunity to examine the practical implementation of technology according to the characteristics of students, teachers, learning activities, and available facilities. A context-specific study can provide a clearer understanding of how digital technology is integrated into learning at the school.

The integration of digital technology does not automatically result in higher motivation and engagement among students. The effectiveness of technology depends on how teachers design learning activities and how students interact with the digital learning resources provided. Inappropriate use of technology may cause students to become passive, distracted, or overly dependent on digital media. Careful selection of digital tools and appropriate instructional strategies are therefore necessary to maximize the educational benefits of technology. Understanding the actual implementation of digital technology at the school level is important for identifying effective

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practices and challenges in technology-supported learning.

This study aims to examine the integration of digital technology in learning to enhance students' learning motivation and engagement at SDIT Rabbani, Bengkulu City. The study focuses on the types of digital technology used during the learning process and the ways teachers integrate technology into classroom activities. Students' attention, enthusiasm, participation, persistence, and involvement are examined as indicators of learning motivation and engagement. The study also explores factors that support and hinder the effective integration of digital technology in the learning process. The findings are expected to provide practical information for teachers and schools in developing interactive, meaningful, and student-centered learning through appropriate digital technology.

Research Method

This study employed a descriptive qualitative research approach to examine the integration of digital technology in learning and its contribution to students' learning motivation and engagement at SDIT Rabbani, Bengkulu City. The qualitative approach was selected because the study focused on obtaining an in-depth understanding of the learning process, the use of digital technology, and students' responses during classroom

activities. The research was conducted at SDIT Rabbani, located in Bengkulu City, Bengkulu Province, Indonesia. The research participants consisted of teachers and students involved in learning activities that utilized digital technology. The selection of participants was based on their direct involvement in the implementation of technology-supported learning (Lambert & Lambert, 2012).

Data were collected through observation, interviews, and documentation. Classroom observations were conducted to identify the types of digital technology used by teachers, the implementation of digital media during learning activities, and students' participation in the learning process. Observations also focused on students' attention, enthusiasm, participation, interaction, and persistence during technology-supported learning activities. Semi-structured interviews were conducted with teachers to obtain information regarding their experiences, strategies, considerations, and challenges in integrating digital technology into learning. Documentation was used to complement observation and interview data through relevant learning materials, photographs of learning activities, lesson plans, and other school documents related to the use of digital technology.

The data analysis process was conducted systematically through data reduction, data presentation, and

conclusion drawing. Data obtained from observations, interviews, and documentation were organized and selected according to the research focus. Relevant information concerning digital technology integration, students' learning motivation, and student engagement was identified and categorized into appropriate themes. The categorized data were presented descriptively to illustrate the implementation of digital technology and students' responses during the learning process. Conclusions were drawn based on patterns and findings identified throughout the data analysis process (Huberman & Miles, 1983).

Data validity was maintained through source and technique triangulation. Source triangulation was conducted by comparing information obtained from teachers and students. Technique triangulation was conducted by comparing findings from observations, interviews, and documentation. The consistency of information across different sources and data collection techniques was examined to strengthen the credibility of the findings. The research process was conducted by maintaining ethical considerations, including obtaining permission from the school, explaining the purpose of the research to participants, and maintaining the confidentiality of information obtained during the study.

Results and Discussion

The Implementation of Digital Technology in Learning

The findings indicate that digital technology has become a supporting component in the learning process at SDIT Rabbani, Bengkulu City. Teachers utilize several forms of digital technology to present learning materials and create more varied classroom activities. Digital media used in learning include educational videos, presentation materials, digital images, interactive learning applications, and other technology-based resources. The selection of digital media is generally adjusted to the learning objectives, subject matter, and characteristics of the students. The use of technology provides teachers with additional resources for explaining concepts that may be difficult for students to understand through conventional teaching methods (Wekerle et al., 2022).

Classroom observations show that digital technology is primarily used during the presentation and exploration of learning materials. Teachers introduce topics through visual presentations and educational videos to provide students with concrete examples of the concepts being discussed (Santagata & Guarino, 2011). Students demonstrate greater attention when learning materials are presented through attractive visual and audiovisual content. Digital technology also allows teachers to combine explanations with pictures, animations,

sounds, and examples that are relevant to students' daily experiences. The learning process becomes more varied because students are not solely dependent on verbal explanations or printed textbooks.

Teacher interviews indicate that digital technology is considered useful for supporting classroom instruction. Teachers perceive digital media as a practical tool for presenting materials and creating learning activities that are more attractive to elementary school students. The use of digital resources also helps teachers provide different forms of explanation according to the difficulty of the material (Jannah et al., 2020). Teachers can repeat or modify learning materials when students experience difficulties in understanding specific concepts. The flexibility provided by digital resources allows teachers to adapt classroom activities according to students' responses.

The implementation of digital technology also demonstrates the importance of teacher competence. Teachers need to understand the technical functions of digital tools and their pedagogical purposes. Technology becomes more meaningful when teachers are able to integrate it with appropriate learning strategies. The findings show that technology is not positioned as a replacement for teachers but as a supporting instrument that strengthens the interaction between teachers and students. Teacher guidance remains necessary to

ensure that students use digital resources according to the learning objectives.

The integration of digital technology at SDIT Rabbani also reflects the school's need to provide learning experiences that are relevant to developments in contemporary education. Elementary school students are increasingly familiar with digital devices and multimedia content in their daily lives. Classroom use of technology can connect students' existing digital experiences with educational purposes. The learning environment becomes more familiar and attractive when digital tools are used appropriately. The implementation demonstrates that digital technology can function as a bridge between students' everyday experiences and structured educational activities.

The Role of Digital Technology in Students' Learning Motivation

The findings show that digital technology contributes to students' learning motivation during classroom activities. Students tend to show greater enthusiasm when teachers use learning media that contain visual and interactive elements. Educational videos, images, animations, and interactive activities attract students' attention and encourage them to focus on the learning materials. Students appear more willing to follow explanations when digital media are presented in an engaging manner. The

learning atmosphere becomes more dynamic because students receive information through various forms rather than through verbal explanations alone.

Students' motivation can be observed through several classroom behaviors (Skinner & Belmont, 1993). Students demonstrate increased attention when digital learning materials are displayed. Some students actively respond to questions related to videos or presentations shown by teachers. Students also demonstrate greater willingness to participate in activities that involve interaction with digital media. The completion of technology-supported tasks indicates that digital learning activities can encourage students to remain involved in the learning process. These behaviors reflect motivational aspects such as attention, interest, willingness, and persistence.

The use of digital technology also provides opportunities for teachers to create learning experiences that correspond to students' interests. Elementary school students generally respond positively to colorful visuals, moving images, sounds, games, and interactive activities. Digital learning resources can accommodate these characteristics when they are selected carefully. Learning materials that are presented through multimedia can reduce the perception that learning is repetitive or monotonous. Students can experience learning as an activity that

involves exploration and interaction rather than merely listening and memorizing.

Teacher strategies play an important role in maintaining students' motivation. Teachers determine when digital media should be used and how it should be connected to learning activities. The findings indicate that technology is most useful when teachers provide explanations and questions before, during, and after the use of digital media. Students are encouraged to think about the content presented rather than simply watch or interact with the media. Teacher facilitation transforms digital resources from entertainment into meaningful learning tools (Aspandi & Muttaqin, 2025).

The findings also indicate that digital technology should not be considered the sole factor influencing learning motivation. Students' motivation is influenced by classroom interaction, teacher support, learning content, peer relationships, and individual characteristics. Technology can strengthen these factors when it is integrated into appropriate instructional activities. Excessive or inappropriate technology use may reduce students' concentration and cause them to focus on the digital features rather than the learning objectives. Careful planning is therefore necessary to maintain the balance between technological attractiveness and educational purpose.

Digital Technology and Student Engagement in Learning

Student engagement is reflected in students' behavioral, emotional, and cognitive involvement during learning activities. The findings indicate that digital technology can encourage students to participate more actively in classroom activities. Students show behavioral engagement through participation in discussions, responses to teacher questions, completion of digital tasks, and interaction with learning media. Emotional engagement can be observed through students' enthusiasm, curiosity, and positive reactions during technology-supported activities. Cognitive engagement is reflected in students' efforts to understand information, answer questions, and connect digital learning content with the topics being discussed.

Interactive digital media provide students with opportunities to become active participants rather than passive recipients of information. Teachers can use digital resources to initiate questions, present problems, and encourage students to provide responses. Students become involved in activities that require them to observe, identify, compare, answer, and discuss information. Such activities create opportunities for students to exercise their thinking skills while interacting with learning content (Anderson & others, 2010). The learning process becomes more student-centered when

technology is used to facilitate active participation.

Classroom observations also indicate that students' interaction with digital media can stimulate peer communication. Students sometimes discuss answers with classmates when completing activities or responding to questions. Collaboration allows students to exchange ideas and assist one another in understanding learning materials. The presence of technology can therefore support social interaction when teachers design activities that require students to communicate and cooperate. Digital technology has greater educational value when it is incorporated into collaborative learning rather than used only for individual consumption.

Student engagement is also influenced by the level of challenge provided by learning activities. Digital technology allows teachers to present problems, questions, quizzes, and visual examples that can stimulate students' curiosity. Activities that are appropriately challenging can encourage students to think and make decisions. Students demonstrate stronger involvement when they perceive that the activity is understandable but still requires effort. The teacher's ability to adjust the difficulty level remains important because technology itself cannot determine whether an activity is suitable for students.

The findings suggest that technology-supported engagement is closely related to the quality of interaction between teachers, students, and learning resources. Digital media can attract students' attention, but sustained engagement requires meaningful activities. Teachers need to provide opportunities for students to explain their ideas, ask questions, solve problems, and reflect on what they have learned. Such practices ensure that technology becomes part of the learning process rather than merely an additional classroom facility. Student engagement increases when digital technology is connected with purposeful interaction and active learning.

Supporting and Inhibiting Factors in Digital Technology Integration

The implementation of digital technology at SDIT Rabbani is supported by several factors. Teacher willingness to use technology represents an important supporting factor because teachers determine how digital resources are incorporated into classroom activities. The availability of digital devices and learning facilities also provides opportunities for teachers to develop technology-supported instruction. Students' familiarity with digital media can facilitate classroom adaptation because many students are already accustomed to interacting with digital content. School support for technology-based

learning can further encourage teachers to explore new instructional practices.

Teacher creativity is another factor that supports effective technology integration. Teachers can modify available digital resources according to the characteristics of their students and the objectives of particular lessons. Digital technology provides opportunities to combine several types of media within one learning activity. Teachers can use videos to introduce concepts, presentations to explain important points, and interactive activities to evaluate students' understanding. Such combinations can create a learning process that is more varied and responsive to students' needs.

Several challenges are also identified in the implementation of digital technology. Differences in students' digital abilities may influence how quickly students respond to technology-supported activities. Technical problems involving internet connections, devices, electricity, or digital applications can interrupt the learning process. Teachers may also experience difficulties when selecting appropriate digital resources from the large amount of information available online. Time limitations can become another challenge because preparing digital learning materials often requires additional planning.

The findings indicate that technology integration requires

continuous teacher development. Teachers need opportunities to improve their technical and pedagogical skills so that digital technology can be used effectively. Technical proficiency alone is insufficient because teachers also need to understand how technology can support learning objectives. Professional development can help teachers design digital activities that promote motivation, engagement, collaboration, and critical thinking. School-level support is important in providing training, facilities, and opportunities for teachers to share experiences.

The challenges identified in this study demonstrate that digital technology integration should be viewed as a continuous process rather than a one-time implementation. Schools need to evaluate the effectiveness of digital tools and identify which technologies provide meaningful benefits for students. Teachers need to reflect on students' responses and make adjustments when particular digital activities do not produce the expected learning outcomes. A gradual and purposeful approach can help schools maximize the benefits of technology while minimizing potential obstacles.

Discussion of Digital Technology Integration, Motivation, and Engagement

The findings demonstrate a relationship between the integration of digital technology, students' learning motivation, and student engagement at SDIT Rabbani, Bengkulu City. Digital technology provides teachers with opportunities to develop learning activities that are visually attractive, interactive, and varied. Students respond positively to learning experiences that involve multimedia and opportunities for interaction. Increased attention and enthusiasm during technology-supported activities indicate that digital media can contribute to students' motivation. Active participation in discussions, tasks, and interactive activities also indicates that technology can support student engagement.

The contribution of technology to motivation and engagement depends on the pedagogical approach used by teachers. Digital technology cannot independently create meaningful learning experiences. Teachers need to determine the appropriate type of technology, timing, learning activity, and expected student response. Technology becomes more effective when it is integrated with questioning, discussion, problem solving, collaboration, and reflection. The teacher remains the central figure who connects technology with educational objectives.

The findings also emphasize the importance of selecting digital media according to students' developmental characteristics. Elementary school students require learning activities that are understandable, attractive, and sufficiently challenging. Digital resources containing excessive visual effects or unrelated information may distract students from the main learning objectives. Teachers therefore need to evaluate the relevance, quality, accessibility, and appropriateness of digital resources before using them. Technology selection should be based on educational value rather than technological sophistication alone.

The integration of digital technology at an Islamic elementary school also needs to maintain alignment with the school's educational values. Digital resources can be selected to support academic learning while encouraging positive attitudes and character development. Learning activities can incorporate values such as responsibility, discipline, cooperation, honesty, and respect. Teachers can guide students to use technology responsibly and purposefully. Such practices demonstrate that technological development and character education can be implemented together within the learning process.

The overall findings indicate that digital technology has potential to enhance students' learning motivation and engagement when implemented

appropriately. The strongest contribution of technology is observed when digital media are combined with teacher guidance and active learning strategies. Students are more likely to demonstrate positive learning behaviors when they understand the purpose of digital activities and are given opportunities to interact with the content. The findings support the view that educational technology should function as a pedagogical tool rather than simply as a technological facility. The implementation at SDIT Rabbani, Bengkulu City, demonstrates the importance of integrating technological innovation with effective teaching practices to create meaningful, interactive, and student-centered learning.

Conclusion

The integration of digital technology in learning at SDIT Rabbani, Bengkulu City, demonstrates its potential to support students' learning motivation and engagement. The use of educational videos, interactive presentations, digital learning resources, and interactive applications provides students with more varied and engaging learning experiences. Students demonstrate positive learning behaviors through increased attention, enthusiasm, participation, interaction, and persistence during technology-supported learning activities. Digital technology also provides teachers with opportunities to present learning

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materials in more creative, interactive, and accessible ways.

The effectiveness of digital technology integration is strongly influenced by the role of teachers. Teachers need to select digital resources based on learning objectives, students' developmental characteristics, and the relevance of the learning materials. Meaningful integration requires a balance between technology use, teacher guidance, classroom interaction, and active learning strategies. The availability of technological facilities, teacher competence, and students' digital abilities also influence the successful implementation of technology-supported learning.

The findings indicate that digital technology should function as a pedagogical tool rather than merely as a classroom facility. Appropriate technology integration can create learning environments that encourage students to become more motivated and actively engaged in learning activities. The implementation of digital technology in an Islamic elementary school also needs to remain aligned with the development of students' character and Islamic values. SDIT Rabbani, Bengkulu City, can continue strengthening technology-supported learning through teacher development, appropriate digital resource selection, and effective utilization of available technological facilities. Future research may examine the integration of specific

digital platforms or learning applications using quantitative or mixed-method approaches to obtain broader evidence regarding their effects on students' motivation, engagement, and learning outcomes.

References

- Anderson, J., & others. (2010). *ICT transforming education: A regional guide*. Unesco Bangkok Bangkok.
- Aspandi, A., & Muttaqin, M. A. (2025). Transforming teacher roles in Indonesia's digital era: Enhancing learning effectiveness and student engagement. *Journal of General Education and Humanities*, 4(4), 1495–1510.
- Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2015). A brief review of effective teaching practices that maximize student engagement. *Preventing School Failure: Alternative Education for Children and Youth*, 59(1), 5–13.
- Huberman, A. M., & Miles, M. B. (1983). Drawing Valid Meaning from Qualitative Data: Some Techniques of Data Reduction and Display. *Quality & Quantity*, 17(4).
- Jannah, M., Prasajo, L. D., & Jerusalem, M. A. (2020). Elementary school teachers' perceptions of digital technology based learning in the 21st century:

- promoting digital technology as the proponent learning tools. *Al Ibtida: Jurnal Pendidikan Guru MI*, 7(1), 1–18.
- Jaya, N. F., Fitriya, H., Rois, N., Ubaidillah, Y. N., & Sukarman, S. (2026). Islamic Education Management in the Formation of Children's Morals in Elementary Madrasahs: The Influence of Digital Media on Character Education. *Academia Open*, 11(1).
- Lakkala, M., Lallimo, J., & Hakkarainen, K. (2005). Teachers' pedagogical designs for technology-supported collective inquiry: A national case study. *Computers & Education*, 45(3), 337–356.
- Lambert, V. A., & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research*, 16(4), 255–256.
- Santagata, R., & Guarino, J. (2011). Using video to teach future teachers to learn from teaching. *Zdm*, 43(1), 133–145.
- Selwyn, N. (2012). *Education in a digital world: Global perspectives on technology and education*. Routledge.
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4), 571.
- Sukasih, S. (2021). Digital literacy and development emotional social skills at elementary school students in the social era 5.0. *Proceeding*, 17–26.
- Utaminingsih, E. S., Puspita, M. A., Ihsandi, A., Intania, B. Y., Prasetya, A. T., & Ellianawati, E. (2023). A systematic literature review: the role of character-based digital literacy in 21st century learning in elementary schools. *Jurnal Penelitian Pendidikan IPA*, 9(10), 829–840.
- Wardani, A. D., Gunawan, I., Kusumaningrum, D. E., Benty, D. D. N., Sumarsono, R. B., Nurabadi, A., & Handayani, L. (2020). Student learning motivation: a conceptual paper. *2nd Early Childhood and Primary Childhood Education (ECPE 2020)*, 275–278.
- Wekerle, C., Daumiller, M., & Kollar, I. (2022). Using digital technology to promote higher education learning: The importance of different learning activities and their relations to learning outcomes. *Journal of Research on Technology in Education*, 54(1), 1–17.