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THE INFLUENCE OF DIGITAL-BASED STUDENT MANAGEMENT ON THE DEVELOPMENT OF STUDENT INTERESTS AND TALENTS

Susilowati Susilowati
Universitas PGRI Adi Buana Surabaya
susilowati@unipasby.ac.id

Diana Evawati
Universitas PGRI Adi Buana Surabaya
diana@unipasby.ac.id

Yunus Karyanto
Universitas PGRI Adi Buana Surabaya
kar_yns@unipasby.ac.id

Rina Asmaul
Universitas PGRI Adi Buana Surabaya
rina.asmaul@unipasby.ac.id

Abstract

This study aims to examine the effect of digital-based student management on the development of students' interests and talents through a literature review. Digitalisation in student management facilitates data management, accelerates communication between schools, students, and parents, and expands students' access to various self-development programmes. The results of the study indicate that the application of information technology in student management can improve administrative efficiency, monitoring transparency, and student participation in extracurricular activities. In addition, a data-driven approach enables schools to design more targeted and measurable interest and talent development programmes. However, challenges such as the digital divide and limited technological competence among educators still need to be addressed. Overall, digital-based student management has great potential to support the optimal development of students' interests and talents, provided that it is supported by continuous evaluation and collaboration among all relevant parties.

Keywords: Impact, Student Management, Digital, Interest Development, Student Talents.

Introduction

Student management is an important aspect of the education system that serves to manage all student activities outside of formal learning. Through student management, schools can create an environment conducive to the optimal development of students' potential, both academically and non-academically. With good management, students are not only guided to achieve academic success, but also encouraged to develop their interests and talents.

The development of information and communication technology has brought significant changes to various sectors of life, including education. The digital era requires every educational institution to adapt to the use of technology, both in the learning process and in school administration (Judijanto & Aslan, 2025); (Purike & Aslan, 2025).

One form of adaptation is the implementation of digital-based student management, which enables more efficient and transparent management of student data and student programmes (Komari & Aslan, 2025). Digitalisation in student management facilitates the management of student data, from attendance recording and grouping to reporting evaluation results. Digital-based student management information systems also facilitate communication between schools, students, and parents, so that student progress can be monitored in real time. In addition, digitisation expands students' access to various educational resources and self-development programmes (Desy et al., 2021). The development of students' interests and talents is one of the main objectives of student management.

Through extracurricular programmes, special coaching, and counselling services, schools strive to identify and channel students' potential according to their interests and talents. With the support of digital technology, these programmes can be accessed more widely and integrated, so that students have more choices in developing themselves (Shang et al., 2023). However, the implementation of digital-based student management is not without challenges. One of the main obstacles is the digital divide that still exists in various regions, both due to differences in access to technology and the skills of educators in utilising it. Additionally, there is still a perception among the community that the primary goal of education is to obtain a diploma and a job, rather than character development and self-potential (Anser et al., 2020).

Another challenge faced is the lack of innovation and awareness among educators to optimally utilise technology in student management. Many educators still view digitalisation as a formality and are unable to innovate within the existing system. This results in the underdevelopment of students' interests and talents through digital programmes (Amalia & Supriyadi, 2023).

On the other hand, digitalisation also presents significant opportunities to enhance the quality of student management. Through data-driven systems, schools can monitor and evaluate student progress more accurately and measurably. The collected data can be used to design programmes that are more targeted to students' needs. As a result, the development of students' interests and talents can be carried out more effectively and efficiently (Supriyadi, 2020).

Collaboration between schools, families, and communities is also an important factor in the success of digital-based student management. Parental involvement in monitoring their children's progress through applications and digital information systems can increase student participation and motivation in self-development

programmes. In addition, support from the community and the surrounding environment can expand networks and opportunities for students to develop their interests and talents (Jando et al., 2017).

Digital-based student management also encourages transparency and accountability in the management of school programmes. Information about student activities, achievements, and progress can be easily accessed by all relevant parties, enabling decision-making processes to be conducted in a more open and participatory manner. This is crucial for building trust and cooperation between schools, students, and parents (Supriyadi, 2020). In addition to the benefits mentioned above, digitisation in student management also helps schools face the challenges of globalisation and the changing times. Innovation in student management enables schools to continuously adapt to the needs and dynamics of society (Qureshi et al., 2019). Thus, schools can become adaptive and responsive institutions to change.

Efforts to develop students' interests and talents through digital-based student management must be accompanied by continuous evaluation and programme adjustments. Schools need to monitor the effectiveness of the programmes implemented and make improvements based on data and input from various parties. Thus, the development of students' potential can be carried out optimally and sustainably (Fahrurrozi et al., 2019).

Finally, the implementation of digital-based student management is a strategic step in improving the quality of education and human resource development. By optimally utilising technology, schools can create an environment that supports the holistic development of students' interests and talents. However, the success of digitalisation implementation is highly dependent on the readiness of human resources, infrastructure, and support from all stakeholders.

Research Method

The research method used in this study is library research, which involves searching, collecting, and analysing various relevant literature sources such as books, scientific articles, and previous research results related to digital-based student management and the development of student interests and talents. The research process was conducted systematically through the identification, critical review, and synthesis of theories, concepts, and research findings that have been published, thereby establishing a strong theoretical foundation and providing a deep understanding of the influence of digitalisation in student management on the development of student interests and talents (Baumeister & Leary, 2020); (Torraco, 2020).

Results and Discussion

The Effect of Digital-Based Student Management

Digital-based student management brings changes in the administration and development of students in the school environment. This transformation is marked by the use of information and communication technology (ICT) that replaces manual systems with digital systems, making administrative processes more efficient, accurate, and transparent (Wibowo et al., 2020).

One of the main impacts of digitalisation is increased efficiency in student administration. With the use of applications such as e-report cards, e-attendance, and student management information systems, data recording becomes faster and minimises errors. This reduces the administrative workload of teachers and staff and speeds up the process of providing services to students and parents. In addition to efficiency, digitisation also strengthens transparency and accountability (Nafiah et al., 2021). Parents can monitor their children's progress in real time through digital platforms, from attendance and grades to participation in extracurricular activities. Family involvement in education also increases due to more open and responsive access to information (Marini et al., 2018).

Digital-based student management also plays a role in improving students' digital literacy. Through interaction with digital systems, students learn to understand, use, and critically evaluate digital information. These skills are essential for facing the challenges of the 21st century and the future world of work.

The use of data analytics in student management enables schools to monitor student progress in real-time and evaluate the effectiveness of programmes based on evidence. As a result, schools can tailor interest and talent development programmes to individual student needs, making them more targeted and impactful. Digitalisation also expands students' access to educational resources and self-development programmes. Various e-learning platforms and extracurricular activity applications can be accessed anytime and anywhere, providing students with more opportunities to explore their interests and talents (Fahrurrozi et al., 2019).

Digital student programmes, such as online competitions and virtual communities, have been proven to increase student motivation and participation. Students can participate in various activities according to their interests without space and time constraints, which ultimately helps them discover and hone their talents optimally. In terms of character building, digital innovations in student management also have a positive impact. Data-based systems and technology enable more objective monitoring of student behaviour, discipline, and activity. Schools can provide timely interventions or rewards, making character building more effective (Safitri et al., 2022).

However, the implementation of digital-based student management also faces challenges. The main obstacles include resistance to change among teachers, infrastructure limitations, and lack of technology training. The digital divide between

urban and rural schools also remains an issue that needs to be addressed to ensure that the benefits of digitalisation are felt evenly (Susanti et al., 2023).

The success of student management digitalisation depends heavily on the leadership of school principals and collaboration among all stakeholders. Visionary and transformational principals are able to build a culture of innovation and technological adaptation in the school environment. Continuous evaluation and adjustment of programmes are essential to ensure that the digital systems implemented remain relevant and effective. Schools must continue to develop data-driven policies and provide training for teachers and educational staff to improve their digital competencies (Hadi et al., 2022).

Overall, digital-based student management significantly contributes to creating an efficient, transparent, and adaptive educational environment. With the right implementation strategies and support from all parties, digitalisation can become the foundation for developing students' interests, talents, and character in a holistic and sustainable manner.

The Influence of Digitalisation in Student Management on the Development of Student Interests and Talents

Digitalisation in student management has brought about significant changes in how schools manage, monitor, and develop students' interests and talents. This transformation not only affects administrative aspects but also has a direct impact on the holistic development of students' potential.

The application of information technology in student management facilitates communication between schools, students, and parents. With a digital-based information system, parents can monitor their children's progress in real time, in terms of attendance, grades, and participation in extracurricular activities. This encourages parents to be more actively involved in supporting the development of students' interests and talents (Bhuiyan et al., 2018).

Digitalisation also expands students' access to various educational resources and self-development programmes. Through e-learning platforms, extracurricular applications, and online discussion forums, students can participate in various activities according to their interests and talents without being limited by space and time. This opportunity is very important for fostering creativity, independence, and collaboration among students (Susanto et al., 2022).

A data-driven approach is one of the important innovations in digital student management. Schools can utilise analytical data to monitor student progress in real time and evaluate programmes more objectively. Thus, interest and talent development programmes can be designed more precisely according to the individual needs of students (Mihardjo et al., 2019a).

Furthermore, digitalisation promotes the improvement of students' digital literacy. Active involvement in the use of digital platforms, such as learning applications and technology-based projects, trains students to understand, evaluate, and utilise digital information critically. This digital literacy is a key asset in facing the challenges of the 21st century (Sarifah et al., 2022).

Digitally integrated extracurricular programmes provide students with the freedom to choose activities according to their interests and talents. Regular evaluations of these activities can also be conducted more efficiently, enabling optimal monitoring and guidance of student development (Mihardjo et al., 2019b).

The development of interests and talents through digitalisation is also supported by leadership training, social activities, and project-based learning models. These activities not only strengthen technical skills but also build character, a sense of responsibility, and leadership qualities in students. However, the implementation of digitalisation in student management is not without challenges. One of the main obstacles is the lack of technological skills among educators and school staff.

Many teachers are not yet fully capable of optimally utilising technology to support the development of students' interests and talents (Mihardjo et al., 2019b). The digital divide is also an issue that needs serious attention. Not all students have equal access to devices and the internet, which has the potential to create inequality in student participation and potential development.

To overcome these challenges, a comprehensive change management strategy is needed. Intensive training for educators, infrastructure strengthening, and the involvement of all stakeholders—including school principals, students, and parents—are key to the success of digital transformation (Nuraini et al., 2020).

Collaboration between schools, families, and communities is essential to ensure the sustainability and effectiveness of digitalisation programmes. With the support of all parties, schools can create an environment conducive to the sustainable development of students' interests and talents (Nadeak et al., 2019).

Continuous evaluation and adjustment of programmes are also essential. Schools must continuously monitor the effectiveness of digital programmes and make improvements based on data and feedback from various parties so that the benefits of digitalisation can be optimally felt by all students (Ibrahim et al., 2020).

Overall, digitisation in student management has great potential to improve the quality of education and support the holistic development of students' interests and talents. With the right implementation strategy, digitisation can become the foundation for creating a generation that is adaptive, creative, and ready to face global challenges.

Looking ahead, digitalisation must continue to be developed and adapted to the dynamics and needs of students. Sustainable innovation and cross-sector collaboration will be the key determinants of success in fostering students' interests and talents through digital-based student management.

Conclusion

Digital-based student management has proven to have a positive impact on the development of students' interests and talents. Through the use of information technology, communication between schools, students, and parents has become more effective, and student progress can be monitored in real time and efficiently. Digitalisation also expands students' access to various educational resources and self-development programmes, giving them more opportunities to explore and hone their potential outside the formal curriculum.

In addition, digital innovations in student management encourage students to actively participate in various extracurricular activities and competitions, which in turn increases their motivation, involvement, and character building. A data-driven approach enables schools to design programmes that are more targeted to the individual needs of students, so that the development of interests and talents can be optimised and measured. However, challenges such as the digital divide and technological skills among educators need to be addressed so that the benefits of digitalisation can be felt equally by all students.

Overall, digitalisation in student management can improve the quality of education and support holistic student development. The success of implementing these innovations depends heavily on continuous evaluation and adjustment, as well as good collaboration between schools, families, and communities to create an environment conducive to the development of students' interests and talents.

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