



The Utilization of Technology in Physical Education Learning: A Lecturer's Perspective

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Abstract

This study uses a qualitative approach with the aim of deeply understanding the lecturer's perspective on the use of technology in physical education learning. The subjects of the study are 5 (five) lecturers who teach physical education in Makassar City. The main instrument in this qualitative research is the researcher himself, who acts as a data collector as well as data analysis. To ensure consistency, researchers also used pre-designed interview guidelines and observation sheets. Based on the results of the study, it can be concluded that the use of technology in physical education learning has great potential to improve the quality of teaching and student learning experience. Technology allows lecturers to provide material in a more interactive way, monitor student activities in real-time, and provide more accurate feedback. The use of wearable devices, fitness apps, video analysis, and online learning platforms has helped lecturers integrate theory and practice more effectively.

Keywords: Technology,
Learning, Physical Education,
Lecturer



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INTRODUCTION

The rapid development of information and communication technology has had a significant impact on various aspects of life, including education (Syafruddin, 2023). One of the areas of education that is increasingly affected by technological advances is physical education (Anggraeni et al., 2023). Physical education, which essentially emphasizes physical activity and health, is now beginning to utilize technology as a tool to improve learning effectiveness (Al Ardha, 2022). In this context, the use of technology not only makes teaching easier, but also provides a more interactive and engaging learning experience for students.

Technology in physical education can be present in various forms, such as fitness applications, wearable devices, video tutorials, and online learning platforms (Hidayatullah & Anwar, 2020). The technology allows lecturers to monitor students' physical activity in real-time, provide instant feedback, and deliver learning materials in a more varied way. Thus, technology becomes a bridge to integrate theory and practice in physical education more optimally (Rahmawati et al., 2024).

However, the use of technology in physical education learning also has its own challenges. Not all lecturers have adequate technological capabilities to integrate digital devices into learning (Syahlan et al., 2024). In addition, infrastructure and technological facilities in educational institutions are still an obstacle, especially in areas that have not been reached by modern technology. This problem can hinder efforts to optimize technology in physical education.

In addition to infrastructure factors, student readiness is also an important factor. Not all students are familiar with the technology used, so it takes a long time to adapt (Firdaus et al., 2023). In some cases, reliance on technology can actually reduce the focus on physical activity, which is at the

core of physical education. Therefore, the right strategy is needed so that technology can be used in a balanced manner without reducing the essence of physical education.

The perspective of lecturers as the main implementers in physical education learning is very important to be researched. An understanding of how lecturers view, utilize, and integrate technology in the learning process can provide a more comprehensive picture of the opportunities and challenges faced. By understanding this perspective, educational institutions can design training programs and provide more appropriate support to improve lecturers' competencies in the use of technology.

Previous research has shown that the integration of technology in education has a positive impact on student engagement and learning quality. However, more specific research on physical education is still relatively limited, especially in Indonesia. An in-depth study of the use of technology in physical education from the perspective of lecturers is expected to contribute to filling existing research gaps.

Furthermore, this research is also relevant in supporting the vision of national education that prioritizes technological literacy as one of the competencies of the 21st century. Physical education, although often considered more traditional, has great potential to contribute to students' digital literacy. By utilizing technology, lecturers can create more meaningful learning experiences, while equipping students with relevant skills in the digital era (Purfitasari et al., 2019).

In an effort to develop innovative learning approaches, collaboration between lecturers, students, and technology developers is also needed (Handayani et al., 2023). This research can be the basis for exploring learning models that not only support the achievement of physical education goals, but also enrich students' learning experiences through technology. This is expected to be able to improve the quality of physical education as a whole.

Based on the description above, this study aims to explore the perspective of lecturers related to the use of technology in physical education learning. Through this approach, it is hoped that new insights will be found on how the technology can be used effectively, the obstacles faced, and recommendations for better implementation in the future.

METHODS

This study uses a qualitative approach with the aim of deeply understanding the lecturer's perspective on the use of technology in physical education learning. This approach is considered appropriate because the focus of the research is the exploration of the lecturer's experience, views, and interpretations regarding the phenomenon being researched. The research design used is phenomenology. Phenomenology aims to explore the individual's experience and perception of a particular phenomenon (Hasbiansyah, 2008), in this case the use of technology in physical education. This approach allows researchers to understand how lecturers interpret and integrate technology in their learning process.

The subjects of the study are 5 (five) lecturers who teach physical education in Makassar City. Subject selection criteria include lecturers who have been actively teaching for at least the last two years, have used technology in physical education learning, both in the form of software, hardware, and digital platforms, and are willing to participate in in-depth interviews and focus group discussions. The main instrument in this qualitative research is the researcher himself, who acts as a data collector as well as data analysis. To ensure consistency, researchers also used pre-designed interview guidelines and observation sheets.

RESULT

The results of this study are the results of researcher interviews with 5 (five) lecturers regarding the use of technology in Physical Education learning.

1. What is your view on the importance of technology in physical education learning?

- a. Answer from lecturer (A): "Technology is very important, especially to make learning more interesting and interactive. It also helps students understand concepts better."

- b. Answer from lecturer (B): "In my opinion, technology is a complement that helps learning, especially to provide illustrations of concepts that are difficult to understand directly."
 - c. Answer from lecturer (C): "Technology is inevitable in the current era. In physical education, this can be a bridge between theory and practice."
 - d. Answer from lecturer (D): "The use of technology is very important, especially for the management of student data such as physical activity records and assessments."
 - e. Darinlecturer's answer (E): "Technology opens up opportunities to make learning more flexible and responsive to student needs."
- 2. What are some of the technologies you have used in physical education learning?**
- a. Answer from lecturer (A): "I have used fitness apps such as Strava to monitor students' physical activity and also tutorial videos on YouTube."
 - b. Answer from lecturer (B): "I often use motion analysis videos and fitness tracking apps."
 - c. Answer from lecturer (C): "I use a smartwatch to monitor students' heart rate during practice and the Zoom application for online learning."
 - d. Answer from lecturer (D): "I often use Google Forms for assignments and Quizziz for evaluation of theoretical understanding."
 - e. Answer from lecturer (E): "I use virtual coaching applications and also social media platforms such as Instagram to give practice assignments."
- 3. What benefits do you feel from using technology in learning?**
- a. Answer from lecturer (A): "Students are more motivated because they use applications that they usually use outside the classroom. Technology also makes it easier for me to give assessments."
 - b. Answer from lecturer (B): "Students can more easily understand movements by watching analysis videos. In addition, I can give more specific feedback."
 - c. Answer from lecturer (C): "I can observe data in real-time and students also feel more modern in learning."
 - d. Answer from lecturer (D): "Efficiency has increased because technology helps me manage data faster and more accurately."
 - e. Answer from lecturer (E): "Students are more enthusiastic because this technology makes learning feel more relevant to their daily lives."
- 4. What are the obstacles you face when using technology in physical education learning?**
- a. Lecturer (A)'s answer: "The problem is that not all students have compatible devices, and sometimes the internet network is a problem."
 - b. Answer from lecturer (B): "Sometimes it is difficult to get a license for certain software, and students also have difficulty accessing some premium features."
 - c. Answer from lecturer (C): "The biggest problem is that not all students understand how to use this technology. It takes additional time to teach the technical use."
 - d. Answer from lecturer (D): "The problem is, I myself sometimes don't understand the latest technology. I need help from colleagues or students."
 - e. Answer from lecturer (E): "There are students who feel burdened because they have to buy additional equipment. In addition, some technologies require a stable internet connection."
- 5. What do you think needs to be done to improve the use of technology in physical education learning?**
- a. Answer from lecturer (A): "Training is needed for lecturers to be more proficient in using technology, and institutions must provide adequate infrastructure."
 - b. Answer from lecturer (B): "Cooperation with technology developers and educational application providers can be a solution to provide more affordable access."
 - c. Answer from lecturer (C): "There needs to be a technology orientation program for both lecturers and students before starting the semester."
 - d. Answer from lecturer (D): "Regular workshops on the latest technology will be very helpful, especially those directly related to physical education."
 - e. Answer from lecturer (E): "Institutions should support lecturers by providing facilities, such as free Wi-Fi and devices that can be loaned."

DISCUSSION

The use of technology in physical education learning shows great potential in improving the quality of teaching and student learning experience (Wiliyanti et al., 2024). Based on the interviews conducted, the lecturers agreed that technology plays an important role in bridging theory and practice, as well as helping students understand complex concepts in a more interactive way. Technology such as fitness apps, wearables, video tutorials, and online learning platforms are considered to provide significant added value in the learning process.

Lecturer A emphasized that technology makes learning more interesting for students, especially since they are already familiar with similar applications outside of the educational environment. This reflects the relevance of technology to today's student lifestyle, which is very closely related to digitalization. This perspective is in line with the view of Lecturer E, who sees technology as a way to make learning more relevant to students' needs and habits.

Another benefit of the technology revealed by Lecturers B and C is the ability to provide feedback in real-time through wearable devices and motion analysis applications. With data obtained directly from the device, lecturers can provide more accurate and specific evaluations to students. This increases the efficiency of the learning process and the quality of feedback received by students. In addition, Lecturer D highlighted the efficiency of student data management through technology, such as the use of digital forms for assignments and evaluations.

Although the benefits are quite significant, this study also reveals challenges that hinder the optimization of technology in physical education learning. Infrastructure constraints, such as the availability of devices and stable internet connections, are the main problems faced by lecturers, as mentioned by Lecturers A and E. Not all students have access to adequate devices, so that technology integration becomes uneven in the classroom.

In addition, the technological competence of lecturers themselves is still a challenge. Lecturer D admits that he sometimes has difficulty understanding the latest technology, which requires additional time and resources to learn it. This shows that although technology continues to develop, not all lecturers have enough skills to make the most of it in learning (Dahlan et al., 2023). Lecturer C also mentioned the need for training to help students adapt to the technology used.

Reliance on technology can also pose risks, especially if it replaces physical activity that is at the core of physical education. Lecturers B and C reminded that the use of technology must be done wisely so as not to reduce the essence of learning that focuses on physical activity. Therefore, technology should be seen as a tool, not a substitute for traditional learning methods.

From the lecturer's point of view, institutional support is needed to overcome this obstacle. Most of the lecturers proposed regular training and cooperation with technology developers, as conveyed by Lecturers B and D. In addition, the provision of facilities, such as free Wi-Fi and supporting devices that students can borrow, is considered an effective step to reduce the gap in technology access.

This research also shows the importance of collaboration between lecturers, students, and technology developers to create solutions that suit the needs of physical education (Nurhikmah & Salahuddin, 2020). As revealed by Lecturer E, the integration of technology that is relevant to students' habits can increase their motivation to learn. However, this must be accompanied by supervision and guidance from lecturers so that the use of technology continues to support learning objectives.

Overall, this study reveals that the use of technology in physical education learning provides significant benefits, but still requires better implementation strategies. By overcoming infrastructure constraints, improving lecturer competence, and providing training to students, technology can be integrated more effectively to support physical education that is innovative and relevant to the needs of the digital era.

CONCLUSSION

Based on the results of the study, it can be concluded that the use of technology in physical education learning has great potential to improve the quality of teaching and student learning experience. Technology allows lecturers to provide material in a more interactive way, monitor student activities in real-time, and provide more accurate feedback. The use of wearable devices, fitness apps, video analysis, and online learning platforms has helped lecturers integrate theory and practice more effectively.

However, this study also reveals that there are obstacles that need to be overcome to optimize the use of technology. The main obstacles include limited infrastructure, such as adequate access to devices and internet connections, as well as a lack of technological competence among lecturers and students (Syifa et al., 2024). In addition, reliance on technology without the right strategy can risk diminishing the essence of learning that focuses on physical activity, which is at the core of physical education.

Institutional support is urgently needed to overcome these obstacles, such as through the provision of technology facilities, regular training for lecturers, and technology orientation programs for students (Elyas, 2018). Collaboration between lecturers, students, and technology developers is also important to create relevant and effective solutions according to the needs of physical education.

This research emphasizes that technology should be seen as a tool that enriches the learning process, not as a substitute for traditional methods. With the right implementation strategy, technology can make a significant contribution in creating physical education that is more innovative, relevant, and in accordance with the needs of the digital era.

REFERENCES

- Al Ardha, M. A. (2022). Inovasi Digital Learning Pada Mata Pelajaran Pendidikan Jasmani, Olahraga, Dan Kesehatan (Pjok). *METAVERSE*, 39.
- Anggraeni, M. D., Mucharromah, R., Taqiyya, B. Z., Fadilah, R. E., Mahardika, I. K., & Yusmar, F. (2023). Perkembangan teknologi dan komunikasi dalam pendidikan. *FKIP E-PROCEEDING*, 1–5.
- Dahlan, Y., Erlitha, P. V., & Aminah, R. (2023). ANALISIS KENDALA PEMANFAATAN TEKNOLOGI INFORMASI KOMUNIKASI OLEH GURU EKONOMI DI SMA NEGERI 31 MALUKU TENGAH. *INDOPEDIA (Jurnal Inovasi Pembelajaran Dan Pendidikan)*, 1(2), 310–318.
- Elyas, A. H. (2018). Penggunaan model pembelajaran e-learning dalam meningkatkan kualitas pembelajaran. *Warta Dharmawangsa*, 56.
- Firdaus, M. R., Irawan, R. R., Mahardika, C. H. Y., & Gaol, P. L. (2023). Tantangan Teknologi Artificial Intelligence Pada Kegiatan Pembelajaran Mahasiswa. *Sindoro: Cendikia Pendidikan*, 1(9), 71–80.
- Handayani, F., Hasyim, D. M., Suryono, W., Sutrisno, S., & Novita, R. (2023). Peran teknologi pendidikan dalam mendukung efektivitas pelaksanaan kurikulum merdeka belajar di perguruan tinggi. *Jurnal Review Pendidikan Dan Pengajaran (JRPP)*, 6(4), 1265–1271.
- Hasbiansyah, O. (2008). Pendekatan fenomenologi: Pengantar praktik penelitian dalam Ilmu Sosial dan Komunikasi. *Mediator: Jurnal Komunikasi*, 9(1), 163–180.
- Hidayatullah, F., & Anwar, K. (2020). Hybrid learning dalam pembelajaran pendidikan

- jasmani sekolah dasar dan menengah maupun pendidikan olahraga perguruan tinggi. *Prosiding SENOPATI (Seminar Olahraga Dalam Pendidikan Teknologi Dan Inovasi)*, 1(1), 10–16.
- Nurhikmah, S. P., & Salahuddin, M. (2020). BAB II PENDIDIKAN JASMANI DI MASA PANDEMI BERBASIS BLENDED LEARNING DI ERA REVOLUSI 4.0. *Dunia Pendidikan Indonesia Menuju Era Revolusi 4.0*, 31.
- Purfitasari, S., Masrukhi, M., Prihatin, T., & Mulyono, S. E. (2019). Digital Pedagogy sebagai Pendekatan Pembelajaran di Era Industri 4.0. *Prosiding Seminar Nasional Pascasarjana*, 2(1), 806–811.
- Rahmawati, L., Suharni, S., Ambulani, N., Febrian, W. D., Widyatiningtyas, R., & Rita, R. S. (2024). Pemanfaatan Aplikasi Canva Dalam Penyusunan Media Pembelajaran Berbasis Teknologi. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 5(1), 129–136.
- Syafruddin, A. (2023). PERAN TEKNOLOGI PENDIDIKAN TERHADAP PERUBAHAN PEMBELAJARAN PENDIDIKAN JASMANI. *Jurnal Teknologi Pendidikan*, 3(2), 36–44.
- Syahlan, M., Hanafi, H., Padli, P., & others. (2024). PERAN TEKNOLOGI TERHADAP PEMBELAJARAN PENDIDIKAN JASMANI. *Jurnal Tunas Pendidikan*, 6(2), 380–388.
- Syifa, S. N., Az-Zahra, A. M., & Rachman, I. F. (2024). Analisis infrastruktur teknologi, pelatihan pengajar dan tantangan dalam implementasi model pembelajaran literasi digital untuk mendukung SDGs 2030. *Jurnal Sadewa: Publikasi Ilmu Pendidikan, Pembelajaran Dan Ilmu Sosial*, 2(2), 212–224.
- Wiliyanti, V., Buana, L. S. A., Haryati, H., Rusmayani, N. G. A. L., Dewi, K. A. K., & Novita, F. (2024). ANALISIS PENGGUNAAN MEDIA BERBASIS TEKNOLOGI DALAM MENINGKATKAN MINAT BELAJAR MAHASISWA. *Jurnal Review Pendidikan Dan Pengajaran (JRPP)*, 7(3), 6790–6797.