

EXPLORING THE ROLE OF EDUCATIONAL TECHNOLOGY IN SHAPING UNIVERSITY STUDENTS' LEARNING INTEREST

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ABSTRACT

This study explores the role of educational technology in shaping university students' learning interest. The research problem focuses on how educational technology contributes to shaping students' learning interest at the University of Mega Buana Palopo. The objective of this study is to examine the role of educational technology in influencing university students' learning interest at the University of Mega Buana Palopo. This research employed a qualitative research design. The researcher applied a purposive sampling technique to collect the data, with special consideration given to students who had high average scores in class, particularly in English. Data were collected through interviews, observations, and documentation. Based on the findings, the researcher concluded that educational technology plays a significant role in the learning process, particularly in enhancing students' learning interest. The results indicate that the use of educational technology has a very positive impact on the learning process by providing access to a wide range of learning resources and making learning more interactive. In addition, educational technology makes it easier for students to access information and complete assignments. Technology also influences the learning process by offering abundant information and enhancing digital literacy, which ultimately makes learning more engaging for students.

Key Words: Digital Literacy, Educational Technology, Learning Interest, Qualitative Study, University Students

INTRODUCTION

Technology, online education, and students continue to evolve. As technological innovations involving the internet and computer software emerge, there is a need to develop new approaches to online education (Cook, 2014). Technological innovation over the past two decades has fundamentally altered the contemporary educational landscape. Revolutionary advances in information and communications technology (ICT), particularly those associated with computers, mobile phones, and the internet, have precipitated a renaissance in educational technology. In this context, educational technology refers to any ICT application aimed at improving education (Escueta, 2020).

Learning at the university level differs significantly from learning at other educational stages. Currently, students at all levels of education belong to a generation that has grown up with modern technology (Kamil, 2021). At the same time, the current state of

pedagogical education has raised global concern, as teacher education systems are facing new and complex challenges (Gabdulkhakov, 2019). University students have their own preferred ways of learning. Some students are more comfortable learning through media, while others require a quiet environment to concentrate effectively. Each learning approach has its own advantages and disadvantages, depending on students' needs. Therefore, students must adopt learning strategies that are suitable for them in order to improve their skills and achieve optimal learning outcomes. One effective approach is for students to clearly understand their own learning goals. For example, if students aim to develop proficiency in English, they need to focus on key foundational elements, such as vocabulary.

Vocabulary is a fundamental component of English language mastery. Students with a strong vocabulary base are generally better able to communicate effectively in English. In other words, to make learning easier and more effective, students must first understand what they need to learn. The integration of emerging technologies in the teaching and learning process is no longer a choice but a necessity for educators, given the extensive infusion of technology in education. This integration is particularly important in relation to changing learning environments, the demand for flexible teaching methodologies, and the need to enhance creativity and innovation in learning (Onyema, 2020).

University students' digital competence is crucial in an era of rapid technological advancement and widespread digitalization. Understanding students' digital capabilities is essential as educational institutions worldwide increasingly integrate digital tools, platforms, and methods into their curricula (Sanchez, 2023). There have been significant changes in teaching methodologies and educational systems over the past five decades. Compared to earlier periods, numerous improvements have been observed, with various techniques being integrated into learning methodologies (Mahfdah, 2024). During the COVID-19 pandemic, educational institutions were closed for on-campus activities, and lecturers were advised to provide blended and online learning opportunities, as well as to implement track-and-trace systems, social distancing measures, and strict hygiene protocols (Godber, 2021). Furthermore, the rapid evolution of mobile information technology and multimedia technology has resulted in more diversified teaching models within information and education systems (Li Sun, 2021).

The global education system has been experiencing challenges related to a serious contradiction between the need to incorporate the achievements of modern science and technology into the content of chemistry education and the lack of well-developed approaches, conditions, and mechanisms for updating this content (Volkova, 2018). Educational systems require continuous updates to their curricula in response to the rapid emergence of new information and the equally rapid loss of its relevance within a few years. Numerous studies on the use of digital technologies in education have been documented in the academic literature (Marianna Ostrovska, 2023).

In the increasingly sophisticated digital era, technology has transformed many aspects of human life, including the field of education. Technological development has significantly influenced people's lifestyles, making it necessary for educational institutions to take responsibility for training students in the effective use of technological resources.

This training is essential for promoting the development and acquisition of digital skills (Gonzalez, 2024). Language education, particularly Indonesian language education, has also been positively influenced by technological advancements (Gondo, 2024). In recent years, the rapid development of handheld devices and sensing technologies has created opportunities for students to learn without the constraints of time and location (Chin, 2021). Educators continuously seek technological tools that can enhance student learning. However, although technology is widely regarded as a valuable classroom resource that can improve learning outcomes, it may also have negative effects on students' learning processes if not used appropriately (Carstens, 2021).

Technology diffusion already accelerates during the implementation phase of a new curriculum (Schutheiss, 2024). Technology education has always been an integral part of general education and is usually carried out as a separate subject taught at the second stage of basic or primary education (Haskova, 2022). Technology is very important for university students and can significantly influence their interest, particularly in the learning process. The role of teachers has shifted from knowledge keepers to coaches, mentors, enablers, facilitators, or advisors in today's information-rich and technology-driven society (Ali, 2025). For example, teachers or lecturers who use technology in the classroom are often perceived as more interesting. Students also tend to feel less bored because technological tools help them understand explanations more easily.

Lecturers who use technology in the learning process can demonstrate that learning materials can be understood in a simpler and more effective way. In other words, both lecturers and students can engage in the learning process more efficiently without excessive effort to achieve clear comprehension. This highlights the importance of using technology in education. One of the most effective ways to make learning materials easier to understand is through the use of technology. Student interest is a key component in the learning process, as it determines their level of participation in the classroom. One factor that can influence students' interest is the use of technology by teachers or lecturers when explaining the material. As stated above, students tend to have higher interest in the learning process when technology is used, because the material becomes more engaging and easier to understand. They no longer have to rely on long explanations written on the whiteboard, as concise explanations supported by technology are often sufficient. By increasing awareness of the potential of technology to assist individuals, particularly students, learning outcomes can be improved (Nepo, 2017).

Students who are accustomed to high-technology gadgets in their daily lives may find learning boring if teachers continue to use monotonous teaching methods (Mahsunah, 2017). In the context of the learning process at the University of Mega Buana Palopo, lecturers commonly use technology to explain course materials. Technologies such as slide presentations, smart TVs, or even whiteboard markers in different colors can make learning more interesting and improve students' interest in the learning process. The situation is notably different when lecturers rely solely on lengthy verbal explanations instead of technology-based instruction. This difference can be observed through students' classroom participation. High levels of participation indicate strong interest, whereas limited participation may suggest low interest in the learning process.

Several researchers have conducted previous studies that are closely related to the present research. The integration of technology into students' learning has a significant influence on student engagement. Through the use of technology, students can become more creative in learning, increase their knowledge, and develop higher levels of interest and motivation (Mufron, 2024). Educational technology in Indonesia has shown significant growth each year. A co-authorship analysis revealed that 2,035 authors have contributed to research in this field. These findings provide a foundation for future studies and help identify directions for further research, particularly in the field of education (Husaeni, 2024). The use of technology can make learning more enjoyable for students and enhance their motivation; however, these findings still require further investigation (Marin, 2022). Technology has also been found to have a strong impact on students' motivation to participate in music classrooms (Murad, 2019). Students demonstrate high levels of motivation and interest when teachers incorporate technology into their teaching. In other words, the use of technology in the learning process at the primary school level is an appropriate and effective approach to teaching and learning (Sitepu, 2023).

Educational technology, social interaction, and learning styles have been shown to have a significant effect on students' learning outcomes. Students in these contexts display strong motivation and enthusiasm when teachers integrate technology and promote social interaction. The use of technology makes teachers' explanations more engaging and enables students to enjoy the learning process more fully (Nurjannah, 2024). The implementation of technology in education has a positive effect on students' motivation and knowledge. Students report feeling more engaged, and most importantly, they find it easier to understand the material presented by their teachers. Technology-enhanced instruction makes explanations more interesting and adds value to the learning experience, thereby increasing students' motivation and knowledge (Al-Awfi, 2024). Finally, developments in science and technology increasingly influence daily life, leading societies to equip future generations with a working knowledge of science and technology issues (Kiyici, 2007).

Several previous studies, as discussed above, have been conducted by various researchers. The similarity between the present study and the previous studies lies in their focus on the influence and role of educational technology on students' interest and motivation, particularly in the learning process. The main differences between this study and the previous studies are the research location and the research subjects. Based on the explanations and conditions described above, the researcher formulated the following research question: How does educational technology shape university students' learning interest at the University of Mega Buana Palopo? Based on this research question, the objective of this study is to explore the role of educational technology in shaping university students' learning interest at the University of Mega Buana Palopo.

METHOD

Research Design

This study employed a qualitative research design. Creswell (2012) states that qualitative research involves exploring and understanding the meanings that individuals or groups ascribe to a social or human problem. The researcher chose this design to gain a deeper understanding of the social situation and to identify patterns and theories related to the research question concerning the influence of technology on students' learning interest at the University of Mega Buana Palopo.

Location

The researcher conducted this study at the University of Mega Buana Palopo. The campus is located on Jalan Andi Ahmad, No. 25, Palopo City, South Sulawesi, Indonesia.

Subject of the Research

The researcher applied a purposive sampling technique to collect the data because the selected data sources required specific criteria. The criteria involved selecting students who had high average scores in class, particularly in the English subject. Based on the purposive sampling technique, the research participants were students from the Midwifery and Nursing Study Programs in the Faculty of Health, as these were the only programs offering an English course during the current semester. In total, four students were selected as the research participants. They had high average scores in the English subject and were therefore considered representative of students from both study programs.

Instrument of the Research

This study employed a qualitative research approach. The researcher acted as the main instrument of the study and collected data through interviews, observations recorded using observation sheets, and photographs taken with a camera as supporting documentation of the interviews.

Technique of Collecting Data

The researcher employed several techniques for data collection, namely interviews, observation, and documentation Esterberg (2002) states that interviews are meetings between two individuals to obtain information and ideas through questions and responses, resulting in communication and the joint construction of meaning about a particular topic. There are three types of interviews: structured, semi-structured, and unstructured interviews. A structured interview is used as a data collection technique when the researcher already knows the information to be obtained. In this type of interview, the researcher prepares research instruments in advance, including alternative questions along with possible answers. Each respondent is asked the same questions, and the researcher records the respondents' answers. A semi-structured interview, also known as an in-depth interview, is more flexible than a structured interview. The purpose of this interview is to explore issues more thoroughly by allowing respondents to express their

opinions and ideas freely. In conducting this type of interview, the researcher must carefully listen to and record the respondents' answers. An unstructured interview is conducted without using a formal interview guide or structured notes. In this approach, the researcher relies only on the main points of the problem to be discussed. In this study, the researcher used a semi-structured interview to obtain data on the influence of technology on students' interest in the learning process.

Nasution (1988) states that observation is the foundation of all knowledge. Similarly, Marshall (1995) explains that through observation, researchers can learn about behavior and the meanings attached to those behaviors. Based on these explanations, observation is considered a crucial method in this research. Therefore, the researcher conducted observations of students' learning processes by attending and participating in classroom activities. In addition, documentation was used to support and complete the data collected in this study.

Technique of Data Analysis

Based on the explanations from the experts above, it can be concluded that data analysis involves systematically searching, organizing, and interpreting data to obtain meaningful results. Therefore, this research employed the data analysis model proposed by Miles and Huberman. According to Miles and Huberman, data analysis consists of three main steps: data reduction, data display, and conclusion drawing or verification. Data reduction is the process of selecting, focusing, simplifying, and organizing the data by identifying the most important information based on the research focus and field findings. In this study, data reduction focused on students' interest in learning English. Data display refers to the process of organizing and presenting data in a structured form to facilitate understanding.

Miles and Huberman (1984) state that the most common form of data display in qualitative research is narrative text, particularly in presenting interview results. Data display helps the researcher to understand the real situation in the field and to obtain comprehensive findings. Conclusion drawing or verification involves interpreting the data to generate conclusions that address the research questions. In this stage, the researcher develops findings that may contribute to theoretical understanding based on the data. In this study, verification focused on identifying patterns related to students' interest in learning English. Finally, all collected data were classified, coded, and categorized into meaningful units, which were then grouped into themes. The results were subsequently presented in a descriptive manner

RESULTS

Based on the interview questions, students provided various responses regarding the role of educational technology and its influence on their learning interest. The students shared their perceptions of how technology affected their interest in the learning process. Through the use of educational technology, its impact on students' learning activities can be observed, both in terms of its benefits and other important aspects. The students' responses also provide insights for students, teachers, and lecturers regarding the role of

technology, particularly in the modern era. In addition, the findings highlight the importance of technology in the field of education. The following section presents the students' responses in detail.

"The influence of technology in learning process is very positive".

"Using technology in learning process is better because it can increase the effectiveness and the efficiency of learning".

Based on the responses above, it can be understood that the use of technology has a significant impact on students. This impact is largely positive, as technology enables students to learn more quickly and efficiently. In addition, when lecturers assign tasks, particularly submission-based assignments, students no longer need to submit their work directly in person; instead, they can simply send soft copies. This practice is beneficial because students do not need to come to campus solely to submit assignments. Overall, the learning process becomes more efficient through the use of technology. The use of technology in the learning process is considered more effective by students because it enhances the overall effectiveness of instruction delivered by lecturers. Technology also increases students' learning interest, as they are presented with concise explanations in visually engaging formats. This approach makes students feel more comfortable during the learning process. Furthermore, when lecturers use technology, classroom conditions become more efficient because learning materials are presented in a simplified manner rather than through lengthy explanations. As a result, students' interest in the learning process increases.

"Technology improves my learning process by providing access to many source and make learning more interactive".

"In my opinion using technology is better in learning because it over more flexibility, access more information and can compare with traditional method".

Based on the explanation above, it can be concluded that technology has a positive impact on students. Through the integration of technology by lecturers, students are able to access a wide range of information. In the current era, information is abundant and easily available; without the use of technology, students would be slower in obtaining relevant information. By using technology in the learning process, students can access information more quickly and efficiently. In addition, the use of technology by lecturers makes classroom interactions more dynamic and interactive. Technology facilitates continuous interaction between lecturers and students during the learning process. Most importantly, technology enhances students' enjoyment of learning and allows them to gain knowledge from multiple sources.

Learning through technology is considered more effective than learning without technology because it offers greater flexibility in the learning process. Furthermore, the use of technology reduces the need for lengthy explanations from lecturers, as learning materials can be presented in a clear and visually engaging manner. This approach has a positive impact on students, enabling them to obtain information more efficiently and making classroom conditions more effective. By comparing technology-based learning with

traditional teaching methods, students are able to evaluate which approach is more effective for their learning process. This comparison can serve as a valuable reference for improving future learning experiences.

"The influence of technology for me is make easy to access the information and to do the assignment".

"Based on my opinion using technology is better because it can make me easy to access knowledge if there is assignment from the lecturer".

The next opinion from one of the students highlights the main influence of technology on her learning experience. She stated that technology has a positive impact on her as a student. The use of technology by her lecturer makes it easier for her to access information. In the current era, information is abundant and readily available; therefore, technology is essential for obtaining information quickly and efficiently. Technology also helps students complete assignments more easily. In completing her assignments, she relied on technology, which allowed her to obtain the necessary materials within a short period of time. She felt that using technology, particularly in the learning process, is more effective because tasks can be completed smoothly and efficiently. Based on her perception, the most important benefit of technology is that it enables her to access knowledge and information easily. She also expressed that she has no difficulty when lecturers frequently assign tasks, as technology makes completing these assignments much easier.

"The technology influences the learning process by giving the access of much information and can make learning more interesting like digital literacy".

"Based on my opinion using technology is better than traditional method because from technology all can be easy".

Based on the explanation above, it can be concluded that the use of technology provides several advantages for students. One of the main advantages experienced by students is the ability to access information quickly. When lecturers assign tasks, students can utilize technology to complete the assignments in a short amount of time. Another advantage is that classroom conditions become more interesting and engaging. This occurs because the use of technology allows students to practice and improve their digital literacy skills. The use of technology is therefore considered more effective in the learning process. Technology can serve as an effective strategy or method that enhances knowledge acquisition. Most importantly, the integration of technology makes educational processes easier and more efficient.

The table below illustrates the role of educational technology in shaping university students' learning interest. As shown in the table, the use of technology improves the learning process, functions as an effective learning strategy, and contributes to increased student knowledge. Overall, technology simplifies and supports educational activities.

Table 1. The role of educational technology in shaping university students' learning interest

No	Student	Influencing
1	Student 1	Technology in learning process is very positive
2	Student 2	Technology improves my learning process by providing access to many source and make learning more interactive.
3	Student 3	The influence of technology for me is make me easy to access the information and to do the assignment.
4	Student 4	The technology influences the learning process by giving the access of much information and can make learning more interesting like digital literacy.

DISCUSSION

The findings of this research conducted at the University of Mega Buana Palopo demonstrate that educational technology plays a pivotal role in shaping university students' learning interest. The integration of emerging technologies is no longer a choice but a necessity, as it addresses the demand for methodological flexibility and the need to enhance creativity in learning. Students in this study reported that technology has a very positive influence, making the learning process more effective and efficient. This finding aligns with the reality that today's students belong to a generation that has grown up with modern technology, where digital competence has become crucial for navigating widespread digitalization.

The shift in the learning environment is further reflected in the changing role of educators. The results indicate that when lecturers use technologies such as slide presentations or smart TVs, learning materials become easier to understand through simple and engaging visual representations. This supports the perspective of Ali (2025), The shift in the learning environment is further reflected in the changing role of educators. The results indicate that when lecturers use technologies such as slide presentations or smart TVs, learning materials become easier to understand through simple and engaging visual representations. This supports the perspective of Ali (2025), who states that the teacher's role has shifted from a knowledge transmitter to a facilitator, mentor, or advisor in a technology-driven society. The findings show that the use of technology reduces student boredom and increases classroom participation, which is a key indicator of learning interest. Conversely, students who are accustomed to high-technology devices in their daily lives tend to find traditional, monotonous teaching methods unengaging.

Furthermore, the accessibility provided by technology has transformed how students manage academic responsibilities. Respondents noted that technology enables them to access large amounts of information quickly and complete assignments more easily. This finding is consistent with Chin (2021), who emphasizes that modern digital devices allow learning to occur without the constraints of time and location. By offering greater flexibility compared to traditional approaches, educational technology fosters a more interactive and

enjoyable learning environment. This flexibility is particularly important as educational institutions worldwide increasingly integrate digital tools and platforms into their curricula.

The impact of technology on student motivation is another critical aspect highlighted in the findings. Students reported that technology makes learning more enjoyable, leading to increased enthusiasm and motivation in the classroom. This supports the findings of Marin (2022), who argues that the use of technology enhances student enjoyment and motivation. By providing a more interactive learning experience, technology encourages students to be more creative and proactive in their learning. Consequently, the learning process becomes an active engagement rather than passive information absorption.

The pedagogical benefits of educational technology are further strengthened by improved teacher student interaction. According to Nurjannah (2024), technology makes teachers' explanations more engaging, which enhances students' enjoyment of classroom learning. This study confirms that enjoyment results from the combined influence of educational technology, social interaction, and learning styles, all of which significantly affect students' learning outcomes. When students find learning enjoyable and easy to understand, their motivation and knowledge increase naturally. This creates added value in the learning experience that traditional methods often fail to achieve.

Digital literacy also emerges as a key benefit of integrating educational technology. The findings indicate that technology encourages students to practice and improve their digital literacy skills. In an era where information rapidly changes and loses relevance, the ability to evaluate and navigate digital sources is an essential competency for university students. This study suggests that technology not only supports subject-matter learning but also helps students develop digital skills that are vital for their future careers, making educational technology an indispensable component of modern higher education.

Finally, the study acknowledges that while educational technology is highly effective, its success depends on lecturers' willingness to move beyond traditional teaching approaches. One limitation identified is that some educators continue to rely on lengthy and monotonous explanations, which may lead to student boredom and reduced interest. The positive effects of technology such as efficiency, accessibility, and engagement can only be fully realized when curricula and teaching practices are adapted to incorporate modern technological tools. Therefore, the role of educational technology extends beyond the tools themselves to encompass a broader transformation of pedagogical approaches that respond to the needs of today's learners.

CONCLUSION

In the learning process, educational technology plays a significant role, particularly in enhancing students' learning interest. Technology has many positive influences on learning, including improving the learning process by providing access to diverse sources, making learning more interactive, enabling students to access information easily, and facilitating the completion of assignments. In addition, technology enhances the learning process by offering abundant information and supporting digital literacy, which makes learning more engaging for students. Considering the important role of educational

technology, several recommendations can be proposed. Teachers and lecturers are encouraged to integrate technology into the learning process, as it can assist them in explaining learning materials more effectively and efficiently. Furthermore, the government should promote the integration of technology into the educational curriculum so that it can serve as a reference for developing more relevant and effective learning materials for students.

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