



PGSD STUDENTS' PERCEPTION OF INFORMATION TECHNOLOGY INTEGRATION IN LEARNING

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PERSEPSI MAHASISWA PGSD TERHADAP INTEGRASI TEKNOLOGI INFORMASI DALAM PEMBELAJARAN

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ABSTRACT

Abstract: This article discusses previous research studies that indicate the benefits and advantages of using information technology in learning. The research is to ascertain elementary school teacher education students' perceptions of integrating information technology in learning. The type of this research is qualitative survey research. The research was conducted in the elementary school teacher education study program of FKIP Riau through data collection techniques through questionnaires and interviews. The population in the study involved 72 elementary school teacher education study program students of FKIP Riau as a respondent in this research with a random sampling technique. The results of the analysis indicate that 81% of students had already knowledge about information technology, 77% indicates that they felt the benefits of information technology use, and 53% indicates they were satisfied with the integration of information technology in learning. Based on the conclusions of the research results, it is recommended that there should be variations in integrating information technology through various learning models or methods to make students experience more meaningful learning.

Keywords: students' perception, information technology integration, elementary school teacher education

Abstrak: Artikel ini membahas kajian penelitian terdahulu yang menyatakan adanya manfaat dan keuntungan penggunaan teknologi informasi dalam pembelajaran. Tujuannya adalah untuk mengetahui persepsi mahasiswa PGSD terhadap integrasi teknologi informasi dalam pembelajaran. Jenis penelitian ini adalah penelitian kualitatif survei. Penelitian dilaksanakan pada program studi PGSD FKIP UIR dengan teknik pengumpulan data menggunakan angket dan wawancara. Populasi dalam penelitian melibatkan 72 mahasiswa PGSD FKIP UIR sebagai responden penelitian dengan teknik pengambilan sampel menggunakan *random sampling*. Hasil analisis menunjukkan 81% mahasiswa sudah mempunyai pengetahuan tentang teknologi informasi, 77% menyatakan merasakan manfaat dari penggunaan teknologi informasi, dan 53% menyatakan puas dengan integrasi teknologi informasi dalam pembelajaran. Berdasarkan simpulan hasil peneliti merekomendasikan bahwa perlu adanya variasi integrasi teknologi informasi melalui ragam model atau metode pembelajaran agar mahasiswa dapat merasakan pembelajaran yang lebih bermakna.

Kata Kunci: persepsi mahasiswa, integrasi teknologi informasi, PGSD

CITATION

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INTRODUCTION

The decentralization of education has affected the management of educational activities at both the school and tertiary levels. Tertiary institutions are given the authority to carry out curriculum development and innovate to develop learning strategies or models that meet the learning needs of each department at tertiary institutions. Higher education institutions must be professionally managed, support student readiness for learning, and create a pleasant academic climate.

The rapid development of information technology also requires universities to make adjustments to technology-based learning (Anih, 2016; Salsabila & Agustian, 2021). The goal of using information technology in learning is to (1) develop knowledge-based society habits such as problem-solving, communication, searching for, managing, and changing knowledge; (2) develop technology and information literacy; and (3) increase the effectiveness and efficiency of the learning process. In addition, the benefits of using information technology are: (1) enabling students to be actively involved with interesting and meaningful learning; (2) students can incorporate new ideas into existing knowledge to understand a new food; (3) students can share ideas, suggestions, or experiences; (4) students can actively achieve the expected goals; (5) students can learn inherently inside or outside the university environment; (6) the creation of learning situations that are directed at meaningful learning processes through a "problem-based or case-based learning" approach; and (7) students can reflect on what they have learned as part of the learning process (Hamidi et al., 2011; Widiyanto et al., 2021).

Utilization of information technology in learning can also help develop a positive learning culture because learning with the help of information technology requires students to

be able to study independently using a variety of approaches that suit their individual needs and helps lecturers develop student knowledge and skills. Therefore, it can be seen that information technology can help improve the quality of learning (Andriani, 2015; Andrianingsih & Mustika, 2022). If all learning uses and utilizes information technology, distance learning is no longer a problem, lecturers no longer have to be present in class, and students are no longer dependent on time to attend lecture activities.

Elementary School Teacher Education Study Program, Faculty of Teacher Training and Education, is a study program that aims to produce prospective educators for elementary schools. Educators in elementary schools are required to be creative in designing and implementing learning activities. So far, the implementation of lecture activities has begun to direct students to be active in using information technology. The goal is that prospective teacher students can be more skilled in using information technology and be able to create interesting learning designs when they become teachers later.

Teacher students should be accustomed to being trained in using information technology because it is useful for practicing creativity in designing learning activities (Malichatin, 2019). One way to develop teacher pedagogical and professional competence is to familiarize teachers with the use of information technology in the learning process. It is time for teachers and prospective teachers to take the initiative to develop professional competence by starting to switch from conventional learning, which only uses chalk and blackboards, to digital-era learning by utilizing information technology (Purnasari & Sadewo, 2020).

Based on the advantages and benefits of using information technology in learning, it is necessary to conduct a deeper study to determine student perceptions of the

integration of information technology in the learning process. The thing that differentiates this research from previous research lies in the aspects studied. Previous research focused on the perception of only one type of information technology, while this study focused on the integration of information technology as a whole. The goal of this study was to find out what PGSD students thought about the integration of information technology in learning.

METHOD

This research is a qualitative survey with the aim of obtaining an overview of the perceptions of elementary school teacher education program students towards the integration of information technology in the learning process. The research was conducted in the elementary school teacher education study program, teacher training and education faculty, UIR, with a population involving all students in the elementary school teacher education study program. The research samples were determined using a random sampling technique with a total sample of 72 respondents. The research techniques used include questionnaires and interviews. Questionnaires are used to determine student perceptions of the integration of the use of information technology in learning. Interviews were used to triangulate the answers in the questionnaire.

The stages carried out in this study include: (1) compiling a questionnaire

instrument that will be used for data collection. The information contained in the questionnaire includes : (1) knowledge about information technology in learning, the usefulness of integrating information technology in learning, and satisfaction with the integration of information technology in learning; (2) testing the validity of the questionnaire using two expert opinions from people who understand information technology; (3) collecting data using questionnaires and interviews; and (4) processing the data obtained quantitatively and qualitatively to then be analyzed descriptively.

RESULTS AND DISCUSSION

In this study, students' perceptions of the use of information technology included knowledge of the integration of information technology in learning, the usefulness of information technology in learning, and satisfaction with the integration of technology in learning. Based on research data processing, the research results can be described as follows:

First, knowledge of the integration of information technology in learning The questionnaire distributed to 72 students obtained data showing that 58 students, with a percentage of 81%, said they knew about information technology, 10 students, with a percentage of 14%, said they were unsure, and 4 students, with a percentage of 5%, said they did not. An overview of student perceptions of knowledge about information technology can be seen in Figure 1.

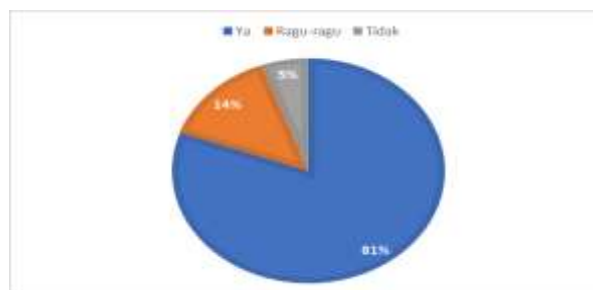


Figure 1. Student Knowledge Of Information Technology

Table 1. Responses to knowledge about information technology integration

Question :
 According to your understanding, explain what you know about the integration of information technology in learning ?

Response:

Integration of information technology in the form of learning tools by utilizing technology such as PPT, YouTube, or Google Classroom

Information technology integration is a tool used by lecturers to share lecture material or upload assignments

Information technology integration is learning by using the internet network

Information technology integration is learning by using a computer

Information technology integration is used to facilitate the implementation of learning with or without the presence of lecturers

Information technology integration is the delivery of information or subject matter with technology

Analysis of Figure 1 is supported by a reduction in student responses in Table 1, so it can be seen that students' knowledge of the integration of information technology is learning that is carried out by utilizing technology in the form of computers or internet networks to facilitate the delivery of material and sharing of information.

Second, the usefulness of integrating information technology into learning. The results of processing student perception questionnaire data on the usefulness of integrating information technology in learning can be observed in Table 2.

Table 2. Student perceptions of the usefulness of information technology integration

No	Statement	Response			
		Yes	%	No	%
1	Information technology can add knowledge and insight	54	75	18	25
2	Information technology makes learning not boring	58	81	14	19
3	Learning with visualization, pictures or films can increase understanding	63	88	9	12
4	The use of information technology becomes an intermediary for sharing knowledge with others	56	78	16	22
5	Courses that are integrated with information technology are more interesting	50	69	22	31
6	The use of information technology can add enthusiasm to learning	63	88	9	12
7	Similar material can be presented through the integration of information technology	55	76	17	24
8	Learning with information technology makes learning feel more meaningful	52	72	20	28
9	Information technology makes it easier to find various types of material (written, audio, or visual)	58	81	14	19
10	Integration of information technology in training self-learning	52	72	20	28
11	Information technology integration is appropriate for all courses	52	72	20	28
	Average (%)		77		23

Based on Table 2, it is known that the average percentage of students stating the benefits of integrating information technology in learning is 77%. However, there were 23% of students who said they did not experience the benefits of information technology integration for various reasons. The reasons for the reduction of student numbers can be summarized as follows :

1. It's confusing if you don't understand how to use it.
2. Not very practical because it costs quite a lot to buy a quota.
3. Assessment of learning is sometimes unclear and confusing.

4. Learning is boring if the use of technology is slow.
5. Difficulty collecting assignments if the network is not smooth
6. Spending time because many preparations must be made before learning begins.

Third, satisfaction with the integration of information technology in learning. The results of processing the questionnaire data found that 38 students stated they were satisfied with the integration of information technology, 20 students said they were doubtful, and 14 students said they were not. An overview of the results of student satisfaction with the integration of information technology can be seen in Figure 2.

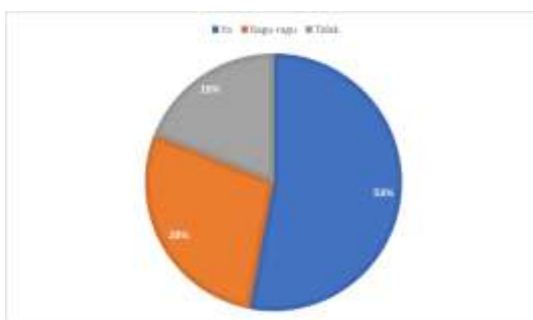


Figure 2. Satisfaction with information technology integration

Analysis of Figure 2 shows that 53% of students expressed satisfaction with the integration of information technology in learning. However, 47% of students were skeptical and dissatisfied with the incorporation of learning information

technology. The reduction in student responses revealed several reasons for doubt and dissatisfaction with the integration of information technology in learning, which can be seen in Table 3.

Table 3. Responses to Student Doubts and Dissatisfaction

Question :
If you answered "doubtful" or "no", explain your reasons by mentioning the lack of integration of information technology in learning?
Response :
The PPT used by lecturers to convey material looks too monotonous
PPT only contains materials with long explanatory descriptions that are difficult to understand
Rarely use video support in learning
The video used is sometimes nfollowingith the material presented
There is no interaction space because Google Classroom is only used as a place to collect assignments
Less effective because the assessment used is less clear
Dissatisfied because the learning method used is not clear

Based on the analysis of Figure 2 and Table 3, it can be concluded that some students are satisfied with the use of technology, but others feel doubtful and dissatisfied. Student dissatisfaction with technology use can be attributed to a failure to use information technology optimally, resulting in students missing out on meaningful experiences during the learning process.

Discussion

Information technology is a technology that is used to process data, obtain, compile, store, and manipulate data in various ways to produce quality information, namely, information that is relevant, accurate, and timely (Ghavifekr & Rosdy, 2015; Lin et al., 2017). Unesco stated that the use of information technology in learning has three objectives, namely: (1) building "knowledge-based society habits" such as the ability to solve problems, turn them into new knowledge, and communicate it to others; (2) developing skills in using information technology (ICT literacy); and (3) increasing the effectiveness and efficiency of the learning process (Asmawi et al., 2019). The ability to use information technology has now been integrated into the curriculum and learning so that it becomes a skill and expertise that must be mastered by teachers. Therefore, PGSD students, as prospective teachers, need to prepare themselves to understand information technology well before facing students in class later.

The results showed that 81% of students already knew about information technology. This knowledge is based on student answers, which state that: (1) technology integration can be interpreted as a learning tool that utilizes a variety of technologies. The intended variety of technologies such as delivering material using

PPT, YouTube, or Google Classroom; (2) the integration of information technology is a device or tool that lecturers use in the learning process to deliver lecture material; (3) the integration of information technology is integrating the learning process using technology that requires an internet network; (4) the integration of information technology is the implementation of learning with the help of technology such as computers; and (5) information technology integration is learning using technology intended to facilitate learning. Information technology integration can take the form of learning that uses the internet network to facilitate the delivery of information. (Hadisi & Muna, 2015) argues that information technology is a set of tools that can assist lecturers in providing information and performing tasks related to information processing.

In terms of the usefulness of information technology in learning, as many as 77% of students stated that they felt the positive benefits of using information technology. More specifically, student perceptions are seen from the statement of benefits in the form of (1) increasing knowledge and insight (75%), (2) making learning not boring (81%), (3) learning with visualization, pictures, or films increases understanding (88%), (4) acting as an intermediary for sharing knowledge (78%), (5) learning feels more interesting (69%), (6) adding enthusiasm to learning (88%), (7) facilitating the presentation of similar material (76%), (8) learning feels more meaningful (72%), (9) making it easier to find a variety of material (81%), (10) training independent learning (72%), and (11) can be used for all courses (72%). Learning changes can be influenced by the use of information technology. (Kamsina, 2020) stated that the integration of technology that is used interactively can be a tool for developing higher-order thinking skills because information technology provides opportunities

for students to dig deeper into information. Information technology can provide benefits for students and lecturers. The utilization of information technology can be an alternative way to develop creative learning, encourage interaction between students, and foster independent learning (Ghavifekr & Rosdy, 2015; Nahdi et al., 2020).

Even though the integration of learning with information technology provides benefits, the research results also show that 23% of students say they do not feel the benefits. The ineffective use of information technology in learning can be caused by a lack of familiarity with using it. The lack of lecturers who use technology in learning can also be a cause of students not routinely using technology, which ultimately affects the desire to use technology in learning (Mulawarman, 2020). In addition, one's perception of the ease of using information technology will also influence its perceived usefulness.

In addition, the research results also show that 53% of students are satisfied with the integration of information technology in learning. Student satisfaction is high because students feel happier learning with the integration of technology compared to just using the lecture method. Hostile students expressed their dissatisfaction. Student dissatisfaction with technology use can be attributed to a failure to use information technology optimally, resulting in students missing out on meaningful experiences during the learning process. Deficiencies in the use of information technology in learning should be minimized by balancing the use of technology with the experience gained so that problems in the use of technology can be resolved.

The results of this study are in line with what was stated (Mustika et al., 2022) that students already know of various websites and learning software. Students are familiar with web-based learning platforms such as Google Classroom, Edmodo, Moodle, YouTube, and Blogspot. While learning software that students know such as Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Movie

Maker, and Adobe Flash, most students stated that they were able to use the web and learning software quite well. In addition, (Saifuddin, 2018) suggests in his research that students have a fairly positive perception of the use of information technology; however, students hope that the use of information technology in learning can be integrated with other learning models or methods, such as the lecture method or observation method. As a result, the integration of technology in learning should be optimized so that students can engage in meaningful learning.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results and discussion, it can be concluded that the perceptions of elementary school teacher education study program students towards the integration of the use of information technology are as follows: First, 81% of students stated that they knew about information technology. Second, 77% of students stated that they saw the value in using information technology in the classroom. Third, 53% of students stated that they were satisfied with the integration of information technology in learning. However, 47% of students expressed doubt and dissatisfaction with the integration of technology, believing that it did not maximize learning.

Recommendations that can be given are: (1) lecturers in the elementary school teacher education study program should be able to combine the use of information technology with other learning methods; and (2) although most students acknowledge the benefits of using information technology, there are still quite a few students who feel dissatisfied with the use of information technology. It should be an evaluation for lecturers in the elementary school teacher education study program so they can optimize the use of information technology in their learning.

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