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PERSPECTIVES OF FKIP STUDENTS OF ASAHAN UNIVERSITY REGARDING THE ABILITY OF TPACK LECTURERS

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Abstract This study aims to illustrate the perspective of students of the Faculty of Teacher Training and Education (FKIP) Universitas Asahan regarding the ability of Technological Pedagogical Content Knowledge (TPACK) lecturers using survey methods. The survey was conducted to collect data from several student respondents, focusing on their assessment of lecturers' TPACK skill levels in a teaching context. The survey method allows efficient and representative data collection from FKIP students. This study uses survey instruments to measure student perceptions of the quality of technology integration, pedagogy, and content in learning. Data analysis involves descriptive statistics to identify common patterns in student responses. The findings of this study found that most respondents stated that the use of technology by lecturers had a significant positive impact on learning. The majority of students stated that technology has increased their understanding, engagement, and participation in the learning process.

Keywords: TPACK; Asahan University; survey

INTRODUCTION

The higher education environment is undergoing significant changes along with the advancement of information technology and digital transformation (Akour & Alenezi, 2022; Carayannis & Morawska-Jancelewicz, 2022). The Faculty of Teacher Training and Education (FKIP), as an integral part of the higher education system, must adapt to these changes to ensure its relevance in providing a quality learning experience. This shift not only includes the application of technology as a tool but also the integration of Pedagogical Technology and Content Knowledge (TPACK) in teaching methods (Luik et al., 2018). Lecturers, as the main facilitators in the learning process, are expected to have the ability to integrate technological knowledge, pedagogy, and content to create effective and relevant learning experiences (Koh, 2020). Therefore, this study intends to explore the views of FKIP Universitas Asahan students regarding the ability of lecturers to apply TPACK, bridging the gap between student expectations and lecturer readiness in facing educational challenges in the digital era. In this framework, a deep understanding of student perceptions of technology integration by lecturers can provide valuable insights to strengthen the quality of learning and increase the capacity of lecturers in facing current educational dynamics.

It is important to note that the dynamics of this change give rise to various challenges and opportunities at FKIP Universitas Asahan. The ability of lecturers to integrate TPACK is not only a matter of mastering technology but also how they can apply it effectively in specific learning contexts in the fields of teacher training and education (Padmavathi, 2017). In this environment, the student's perspective becomes an invaluable source of information. Their views on the use of technology by lecturers, responses to teaching methods, and

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expectations for the use of technology in learning can all provide direction for policy development and improvement of learning approaches in FKIP (Foulger et al., 2017).

In addition, this study also raises important issues related to gaps in student understanding and involvement in the learning process using technology (Gonzales et al., 2020). With a deep understanding of students' perspectives, institutions can design learning strategies that are more responsive and relevant to their expectations and needs (Bonner et al., 2018). This becomes even more crucial, considering that FKIP students will later become prospective educators and education staff who must be ready to face the dynamics of educational development in the future.

By detailing this background, the research is expected to contribute to the development of educational policy at FKIP Universitas Asahan, creating a supportive, dynamic learning environment and preparing students to become adaptive educational leaders in this digital era. Higher education is an important milestone in the development of quality human resources. Faculties of Teacher Training and Education (FKIP) in various universities have a crucial role in forming qualified educator candidates. To achieve this goal, the role of lecturers in using Technological Pedagogical Content Knowledge (TPACK) is essential. TPACK describes the combination of technological knowledge, pedagogy, and content that is essential in providing a quality learning experience (Shafie et al., 2019).

TPACK refers to the skills possessed by an educator in integrating technology, pedagogy, and knowledge synergistically (Malik et al., 2019; Nisa et al., 2022). These skills are becoming increasingly crucial in today's digital era, where information technology has a significant impact on the world of education (Nisa & Aryni, 2023; Saykili, 2019). Therefore, the assessment of lecturers' ability to apply TPACK is very relevant, especially from the perspective of students as the main subject in the learning process (Septiyanti et al., 2020). Previously, research was conducted to determine the impact of mastery of lecturer TPACK on classroom learning as well as the benefits of TPACK abilities that students have when doing assignments.

In the context of the ability of TPACK lecturers at FKIP, Asahan University reflects the dynamics that continue to develop when facing the challenges and opportunities of educational technology. A number of recent empirical studies highlight the complexity of TPACK's integration into teaching and learning at the university level. This illustrates a paradigm shift in lecturers' approach to the use of technology. The findings show that lecturers are increasingly aware of the importance of harmonization between technological knowledge, pedagogy, and knowledge, as well as the adoption of teaching strategies that are responsive to student needs. Moreover, with the increasing role of technology in distance learning, there are adaptations and experiments related to the use of online platforms, interactive tools, and collaborative learning strategies. However, despite positive developments, challenges related to curriculum updates, limited access to technology, and lecturer readiness remain the focus for further development. In line with the development of educational technology globally, FKIP Universitas Asahan emphasizes the need to continuously evaluate and improve the readiness of lecturers to face the dynamics of learning technology developments in the contemporary era.

The purpose of this study is to gain a deep understanding of the perspectives of FKIP students of Asahan University regarding the ability of lecturers to apply TPACK. This study aims to identify strengths and weaknesses in the integration of technology, pedagogy, and knowledge by lecturers in the learning process. In addition, this study aims to compile a

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comprehensive picture of student expectations, preferences, and experiences related to the use of technology in learning in the FKIP environment. Through this deep understanding, this research seeks to contribute to improving the quality of learning at FKIP Universitas Asahan by designing concrete recommendations and solutions to fill the identified gaps. In order to reveal student perspectives related to the ability of lecturers to apply TPACK, this study focuses on the reality of learning dynamics in the FKIP environment of Asahan University. Students, as key stakeholders, have a unique view of the effectiveness of implementing technology in the classroom. Therefore, this study aims to explore a deeper understanding of how FKIP Universitas Asahan students assess the ability of lecturers to integrate TPACK into their learning process.

METHOD

This research uses a quantitative approach through survey methods to obtain data from FKIP students of Asahan University. The population of this study is active students at FKIP Universitas Asahan, focusing on those who take courses that apply technology in the learning process. The research sample was selected purposively, taking into account the variety of study programs and semester levels (Schreier, 2018). The survey instrument developed consists of structured questions of 10 questions designed to measure students' perceptions of lecturers' ability to apply TPACK, as well as their preferences and expectations regarding the use of technology in learning. The survey is distributed online to selected participants through Google Forms. The collected data were analyzed using descriptive statistical methods. The analysis steps involve categorization, reduction of data, and interpretation of the meaning of emerging findings (Kim et al., 2017).

RESULTS AND DISCUSSION

This survey is designed to explore the views of FKIP Universitas Asahan students regarding the ability of lecturers to integrate Pedagogical Technology and Content Knowledge (TPACK) in learning. The following is the result of the analysis of the questions given using Google Forms.

1. How often do you experience the use of technology by lecturers in your courses?

Of the 30 respondents interviewed, the majority of students reported that their professors consistently use technology in teaching. As many as 25 out of 30 respondents (83%) stated that technology such as digital presentations, e-learning, and online platforms are routinely used by lecturers in the implementation of courses. However, there is also a small percentage of respondents (17%) who report that the use of technology by lecturers is still limited or less frequent. This variation may be influenced by the type of course or the lecturer's preference in applying technology in a teaching context.

2. To what extent do you think lecturers are able to integrate technology (such as the use of software, online learning platforms, or hardware) with their teaching methods?

Based on the results of a survey with 30 respondents, the general impression is that lecturers have varying levels of ability to integrate technology with their teaching methods. Of the total respondents, 18 people (60%) considered that their lecturers had good skills in integrating technology. They noted that lecturers regularly use software, online learning platforms, and hardware to support the learning process. However, as many as ten

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respondents (33%) stated that lecturers tend to have limited ability to integrate technology. They report that the use of technology is still isolated or only used in a limited way in some aspects of learning. Meanwhile, two respondents (7%) find it difficult to assess the extent to which lecturers are able to integrate technology because they have not experienced significant use of technology in teaching methods. This variation may be influenced by a variety of factors, including the lecturer's level of technology skills, the availability of technological resources in the academic environment, and individual preferences regarding the use of technology in learning.

3. Do you feel that the use of technology by lecturers has increased your understanding of the learning material?

Based on responses from 30 respondents, the majority of students stated that the use of technology by lecturers has had a positive impact on their understanding of learning materials. A total of 24 respondents (80%) stated that they felt the use of technology by lecturers had increased their understanding of learning materials. Respondents generally detailed that their use of software, online learning platforms, and hardware has helped them access additional learning resources, stimulated their interest, and facilitated interactive learning.

They also highlight the benefits of using multimedia and digital presentations that enrich the learning experience. However, there is also a small percentage of respondents, namely six people (20%), who report that the use of technology by lecturers does not have a significant impact on their understanding of learning materials. Some of them state that although technology is used, other factors, such as teaching methods or presentation quality, are still the main determinants in the understanding of the material. Overall, despite the variation in opinions, the majority of students see that the use of technology by lecturers contributes positively to their understanding of the learning material.

4. What do you think about the availability of technological resources in the learning environment, such as laboratory facilities or internet access?

Based on the results of a questionnaire involving 30 respondents, generally, perceptions regarding the availability of technological resources in the learning environment vary. A total of 18 respondents (60%) expressed satisfaction with the availability of technological resources, especially laboratory facilities and internet access. They consider that the learning environment has provided adequate infrastructure to support their technological needs. However, there were ten respondents (33%) who expressed dissatisfaction regarding the availability of technological resources. Some of them reported that laboratory facilities were often inadequate or damaged, while others felt that internet access in the learning environment still needed to be improved to support online learning activities.

Meanwhile, two respondents (7%) stated that they find it difficult to provide an assessment because they have not experienced significant use of technological resources in the learning environment. Dissatisfaction on the part of respondents can be caused by factors such as lack of maintenance and maintenance of facilities, limited accessibility, or certain technical problems. Recommendations for increasing the availability of technology resources in the learning environment can involve improving facilities, improving internet access, and further attention to students' technology needs.

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5. To what extent do lecturers integrate technological knowledge, pedagogy, and content in their teaching?

Based on responses from 30 respondents, most students see that their lecturers have successfully combined technological knowledge, pedagogy, and content effectively in teaching. A total of 24 respondents (80%) stated that their lecturers have created a balanced learning experience by integrating technology, effective teaching methods, and in-depth knowledge of the subject matter. Respondents generally detailed that lecturers who successfully combine these three elements are able to provide a more interesting, interactive, and relevant learning experience. The use of technology is contextually integrated to enhance the understanding of the material, while appropriate pedagogical approaches support an effective learning process.

However, six respondents (20%) stated that some lecturers have not fully succeeded in optimally integrating technological knowledge, pedagogy, and content. Some of them noted that the use of technology may sometimes feel detached from the subject matter or not always support learning most effectively. Overall, the majority of students see that lecturers have been able to integrate these elements into their teaching, but there is also room for development and improvement in some cases. Increased training or support for the development of these skills may improve the overall quality of teaching.

6. Do you feel that the use of technology by lecturers has increased your involvement and participation in the learning process?

Based on responses from 30 respondents, the majority of students feel that the use of technology by lecturers has had a positive impact on their level of involvement and participation in the learning process. A total of 22 respondents (73%) stated that the use of technology by lecturers has increased their involvement in the classroom. Students report that a variety of technologies, such as online learning platforms, interactive software, and digital resources, have stimulated their interest in learning materials.

The use of technology is also considered effective in creating more dynamic and interactive learning experiences, allowing active participation through online discussions, polls, or technology-based projects. However, there were eight respondents (27%) who did not feel a significant increase in engagement due to the use of technology by lecturers. Some of them stated that other factors, such as teaching methods or classroom dynamics, had a greater influence on their level of engagement. Overall, while most students see that faculty use of technology contributes positively to engagement and participation in learning, there are variations in individual experiences that a variety of contextual factors can influence.

7. Do you think the lecturer has provided enough guidance or training related to the use of technology in learning?

Based on responses from 30 respondents, most students feel that lecturers have not provided enough guidance or training related to the use of technology in learning. A total of 20 respondents (67%) stated that they consider technology-related guidance or training inadequate. Some students revealed that the lack of guidance made them feel less prepared for technological change or to optimize the learning potential offered by digital tools. Some also feel that lecturers have not provided enough information related to the technological resources available in the learning environment. However, ten respondents (33%) stated

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that their lecturers had provided adequate guidance or training regarding the use of technology in learning. They appreciate the lecturers' efforts in helping students understand and master the devices, platforms, or applications used in the learning context. The results of these responses indicate that there is a need to increase efforts to provide technology-related guidance and training so that students can feel more confident and prepared to face the demands of learning that involve the use of technology.

8. Are there any challenges or obstacles you encountered regarding the use of technology in your course?

Based on responses from 30 respondents, a number of challenges and obstacles related to the use of technology in courses were identified. Of the total respondents, 25 students (83%) reported facing several challenges related to the use of technology. The majority of students mentioned that unstable or limited internet accessibility was one of the main obstacles. Some also experience difficulties in using certain online learning platforms or software, which might affect their involvement in online learning. However, five respondents (17%) stated that they did not face significant challenges related to the use of technology, and they felt that lecturers had successfully overcome these potential barriers. In conclusion, most students face challenges related to internet accessibility, understanding technology concepts, and using online learning platforms. Further efforts are needed to overcome these barriers, such as providing better guidance, ensuring stable internet access, and supporting the understanding of technology concepts so that the use of technology in learning can be more effective and inclusive.

9. To what extent do you believe that the development of TPACK lecturer capabilities can improve the quality of learning at FKIP Universitas Asahan?

Based on the responses of 30 respondents, the majority of students believe that the development of TPACK (Technological Pedagogical Content Knowledge) capabilities of lecturers can improve the quality of learning at FKIP Universitas Asahan. A total of 25 respondents (83%) expressed their belief that improving the TPACK ability of lecturers will have a positive impact on the student learning experience. Students see that better TPACK capabilities will enable lecturers to integrate technology, pedagogy, and content knowledge in teaching methods more effectively.

This is considered to be able to create learning that is more dynamic, relevant, and in accordance with student needs. However, five respondents (17%) expressed doubts or uncertainties regarding the direct impact of TPACK capability development on learning quality. Some of them highlight that other factors, such as teaching methods and lecturer communication, also play an important role in determining the quality of learning. Overall, the majority of students see positive potential in developing the ability of TPACK lecturers as the key to improving the quality of learning at FKIP Universitas Asahan. Increased support and training related to TPACK may be able to make a significant contribution to improving the effectiveness and relevance of learning in this academic environment.

10. Do you have any specific suggestions or recommendations to improve the integration of technology in teaching within FKIP Universitas Asahan?

Based on the responses of 30 respondents, a number of suggestions and recommendations emerged to improve the integration of technology in teaching within FKIP

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Universitas Asahan. Some of the suggestions expressed by students involve aspects of teaching, facilities, and student support. As many as 25 respondents (83%) suggested improving lecturer training and support related to the use of technology. They argue that more intensive and focused training on the application of technology in teaching can improve lecturers' skills in integrating technology effectively. Almost all respondents (97%) highlighted the importance of providing adequate technological facilities, including computer laboratories and stable internet access. Some students suggested improving or adding laboratory facilities, as well as ensuring the stability of internet access to support online learning. A total of 18 respondents (60%) suggested developing or updating the online learning platform used.

Some of them emphasize the importance of platforms that are intuitive and accessible and provide various features to support interactive learning. A number of students (20%) proposed to raise student awareness regarding available technological resources. They suggest promotional or outreach programs that can provide a better understanding of how to utilize technology in learning. Around 15 respondents (50%) detailed the need for the development of rich and varied digital content. They suggest that lecturers can create interesting learning materials by utilizing various types of digital media to increase student attraction and understanding. Overall, these suggestions and recommendations reflect the need for a holistic approach involving lecturers, facilities, learning platforms, student awareness, and digital content to enhance technology integration in teaching at FKIP Universitas Asahan.

The survey results show that most FKIP students of Asahan University experience the use of technology in their courses, although the frequency level varies. The majority of respondents stated that lecturers are able to integrate technology into their teaching, but there are variations in the extent to which such integration is effective (Reyes Jr et al., 2017). Most students feel that the use of technology by lecturers has increased their understanding of learning materials. Student views on lecturers' ability to combine technology, pedagogy, and content knowledge (TPACK) also vary (Fathi & Yousefifard, 2019). Some respondents feel that lecturers have managed to combine all three aspects well, while others feel there is still room for improvement. The existence of this difference of opinion highlights the importance of developing the ability of TPACK lecturers to improve the quality of learning at FKIP Universitas Asahan.

Although most students feel that the use of technology has increased their engagement and participation in the learning process, some respondents identified challenges related to the use of technology. The availability of adequate technological and training resources are key factors that need attention (Barrot et al., 2021). Based on the results of this survey, there is an opportunity to improve the quality of teaching by focusing on developing the TPACK capacity of lecturers and ensuring the availability of adequate technological resources. Suggestions and recommendations from students can also be the foundation for further improvement and development in the integration of technology in learning at FKIP Universitas Asahan.

In addition, student responses to guidance or training related to the use of technology by lecturers reflect the need for better support in dealing with the technical and pedagogical aspects of TPACK. In general, students recognize that the use of technology can add value to their learning experience. However, the challenges, especially related to the availability of

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resources and lecturer guidance, highlight the importance of careful planning in implementing technology in the FKIP environment of Asahan University.

The importance of attention to the integration of technology in learning can also be seen from the suggestions and recommendations submitted by students. Some students stressed the need for increased access to laboratory facilities and hardware, while others suggested regular training programs for lecturers to improve their understanding of applying technology effectively. Overall, the results of this survey provide a comprehensive picture of the perceptions and experiences of FKIP Universitas Asahan students regarding the ability of lecturers to integrate TPACK. The implications of these findings can be the basis for efforts to improve and develop policies at the institutional level, with a focus on strengthening the ability of lecturers to adopt technology on an ongoing basis to improve the quality of learning in the digital era.

In addition, the survey findings provide important insights related to students' preferences for teaching formats that integrate technology. Some students may be more responsive to online learning approaches, while others may value using technology more in the form of practical applications in the classroom. A deep understanding of these preferences can help develop teaching strategies that are more adaptive and responsive to student needs. In addressing the identified challenges, concrete measures such as increased access to technological resources, curriculum development that supports technology integration, and training programs focused on TPACK can be implemented. Thus, the results of this survey provide a foundation for policy improvements at the institutional level to create a learning environment that combines technological excellence with pedagogical expertise, thus providing an optimal learning experience for FKIP Universitas Asahan students.

In conclusion, this study provides an in-depth understanding of students' views and experiences related to lecturers' ability to integrate TPACK. By taking concrete steps to improve the ability of lecturers and strengthen technological infrastructure, FKIP Universitas Asahan can better respond to the dynamics of educational needs in the digital era while improving the quality of graduates who are ready to face the demands of the changing world of work. In discussing the survey findings regarding the perspectives of FKIP Universitas Asahan students regarding the ability of lecturers to integrate Pedagogical Technology and Content Knowledge (TPACK), it should be emphasized that these results have an important impact on improving the education system at the institutional level. The variation in student perceptions regarding the effectiveness of technology integration by lecturers is a signal for institutional policies to pay more attention to student needs and preferences in the use of technology in the classroom. A holistic approach is needed, which involves improving the skills of lecturers in the use of TPACK and providing adequate technological resources.

In addition, the challenges identified by students, especially related to the availability of resources and lecturer guidance, emphasize the need for investment in educational technology infrastructure and faculty professional development. Regular training programs that cover aspects of TPACK can provide concrete solutions to improve lecturers' skills in facing the demands of technology-based learning. Student advice highlighting the importance of laboratory facilities and hardware forms the basis for institutions to prioritize investment in this regard, thus providing a conducive learning environment. These steps, if

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implemented carefully, can improve teaching efficiency, student engagement, and, ultimately, the quality of FKIP Universitas Asahan graduates.

Thus, these findings not only create a better understanding of the dynamics between students and lecturers in the use of technology but also provide a foundation for policy improvements that can face challenges and take advantage of educational opportunities in the digital age. Institutions can use these findings as a basis for formulating long-term strategies that support faculty capacity building and improve educational infrastructure. Increasing the capacity of lecturers is not only limited to understanding technology alone but also includes pedagogical abilities in integrating these technologies into curriculum and teaching methods. Therefore, training programs should be designed with a holistic approach, including the development of pedagogical and technical skills along with the strengthening of content knowledge.

In response to student suggestions regarding laboratory facilities and hardware, institutions should conduct an in-depth evaluation of their technological infrastructure needs. Investment in adequate facilities will support lecturers' ability to create interactive and technology-based learning experiences. In addition, the findings of this survey also highlight the importance of collaboration between lecturers and students in designing and implementing technology in learning (Tondeur et al., 2017). Participatory approaches such as these can create an environment that is responsive to technological developments and ensure that their use is geared towards enhancing the learning experience (Haleem et al., 2022).

In a broader context, the discussion leads us to understand that the use of technology in education is not only instrumental but also reflects the dynamics of interaction between education stakeholders. Therefore, improvements in the use of technology in FKIP Universitas Asahan must include aspects of lecturer training, technology infrastructure, and student engagement, along with policies that support the integration of technology in learning.

In closing, the results of this survey make a valuable contribution to directing the improvement of education at FKIP Universitas Asahan, which can have a positive impact not only on the student experience but also on the quality of graduates who are ready to face global challenges in the digital era. In order to continue improving education at FKIP Universitas Asahan, collaboration between lecturers, students, and administrative parties is key. Strategic planning needs to be made to ensure that investments in lecturer training and technology infrastructure are in line with the vision and mission of the institution. Ongoing professional development programs, including TPACK training, can be a crucial step to ensure that lecturers remain relevant in the face of technological developments (Dalal et al., 2017).

In terms of infrastructure, a continuous evaluation of the needs and capabilities of technological resources needs to be carried out. Student involvement in the planning and evaluation process can provide valuable perspectives. Institutions can also establish partnerships with industry or related institutions to ensure that the facilities and technology available are in accordance with the demands of the world of work. In addition, open communication between lecturers and students must be strengthened. Discussion forums, evaluation meetings, and feedback mechanisms can help build a better understanding of students' needs and expectations regarding the use of technology in learning (Dichev &

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Dicheva, 2017). It can also create a culture of cooperation that encourages innovation in teaching methods.

More broadly, the findings from this study can form the basis for continued research and more comprehensive policy development at the institutional level. Understanding that the integration of technology in education is not an end goal but an ever-evolving journey, institutions can adapt their strategies according to technological developments and emerging educational needs. With these concrete and collaborative steps, FKIP Universitas Asahan can strengthen its position as an adaptive and innovative educational institution, ensuring that its students not only have a deep understanding of their field of study but also relevant technological skills in this digital era.

CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that most of the responses from 30 respondents to a number of questions about the integration of technology in teaching at FKIP Universitas Asahan, it can be concluded that the use of technology by lecturers has a significant positive impact on learning. The majority of students stated that technology has increased their understanding, engagement, and participation in the learning process. However, there are some challenges faced, such as the availability of technological resources, internet accessibility, and understanding of technology concepts.

However, students believe that the development of lecturers' TPACK skills can be a solution to improve the quality of learning. Recommendations from students include improving lecturer training, providing good internet facilities and accessibility, developing online learning platforms, promoting student awareness, and developing digital content. Therefore, it can be concluded that while the use of technology has brought positive benefits, further efforts are needed to overcome challenges and maximize the potential of technology in supporting learning at FKIP Universitas Asahan.

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