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Student Perceptions of Online-Based Computer Practicum Learning

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Abstract

The goal of this study is to learn about students' perspectives about online-based computer practicum learning and the characteristics that they require when doing so. This qualitative descriptive research was done with 58 students from the Islamic Broadcasting Communications FUAD IAIN Curup batch 2019 utilizing interview and questionnaire procedures, and descriptive approaches were employed as an analytical tool. The findings of the study, which looked at several aspects of online learning, including materials, learning tools, networks, and assignment delivery, revealed that 67.2 percent of students found it difficult to understand the learning material as a whole, and 75.9 percent of students found it difficult to provide learning tools, both hardware, and software. Quotas and internet networks were cited by 86.2 percent of students as barriers to participation in learning, while 55.2 percent of students had trouble sending assignments. Online-based computer practicum learning, on the other hand, can have a good impact on student independence and inventiveness. According to the findings of the study, 93.1 percent of students are more autonomous in seeking additional material as a supplement to the module's explanation via the internet in the form of other modules or video tutorials, and 87.9 percent of students can be more creative in completing the provided work. The findings revealed that the majority of students believed that implementing online-based computer practicum learning was difficult. To overcome the limited resources owned by students, proper online computer practicum learning methodologies are required, such as offering content in the form of video tutorials and using e-learning helped by digital laboratories based on remote access.

Keywords: Student Perceptions, Online-Based Learning, Computer Practicum Learning

INTRODUCTION

During the Covid-19 pandemic, online learning has become increasingly important in the world of education, particularly in Indonesia. Online learning is used at practically all stages of education, from elementary school to higher education, as part of the Work From Home initiative. Online learning is a type of learning that does not take place in person, but rather via the use of a platform that facilitates the teaching and learning process despite the distance (Handarini & Siti Sri Wulandari, 2020). With the availability of numerous educational support apps in the digital era, it provides enormous prospects for the application of online learning in schools in the implementation of learning, which largely involves information technology. This phenomenon is seen as in line with the current educational trend, which demands more student-centered learning by incorporating more

technology into learning, so that learning resources are not only centered on the teacher, but can be obtained from various sources available online, and students can access them without regard to space or time constraints. Student-centered learning is ideal for millennial students, who are self-sufficient, imaginative, and creative (Mujianto, 2020).

There are numerous aspects to consider while implementing online learning, including: 1) Students in remote learning still require motivation, planning, and the ability to independently analyze materials, assignments, and assessments. 2) The campus plays an important part in the success of the remote learning system by providing infrastructure for lecturers to adapt classroom teaching approaches to technology-based learning (Ratnawati & Vivianti, 2020). As stated by Apriani, et al. (2021) Information Technology and Communication (ICT) has the potential to create a conducive atmosphere for students to learn English. In general, numerous programs are utilized in online learning activities, such as WhatsApp Group, Zoom, Edmodo, e-Mail, Google Classroom, and Schoology, all of which are employed according to the agreement between lecturers and students. The goal is for students to be able to accept and understand the material presented during online learning (Septiani & Setyowati, 2020).

One of the teachings that have been impacted by the Covid-19 epidemic is practical learning. Practical learning is best done offline, with experiments as the learning approach (Ratnawati & Vivianti, 2020). Students use practical tools when adopting this strategy, which includes regulating variables, observing, including comparisons or controls, and using practical tools. Students are given the opportunity to experience or do it themselves as part of the teaching and learning process with this practical method. Students will gain more confidence in one thing than only obtaining information from the teacher and book, can enhance their experience, build scientific attitudes, and their learning outcomes will endure longer in their minds if they participate in practicum. In accordance with practical learning competency achievements, namely: to increase students' skills and competencies in using equipment, software, and designing various projects (Ratnawati & Vivianti, 2020).

Using the internet to do practical learning has its own set of obstacles. Online learning requires students to offer practicum resources autonomously, as opposed to the traditional practicum learning setting, which is normally carried out in university laboratories with varied equipment required. As is the case in computer practicums, students' hardware and software equipment may not always be appropriate for their learning needs. As a result, in online-based practicum learning, the challenge of providing standard equipment becomes a different barrier. Another thing to keep in mind is that implementing online learning comes with a slew of challenges and nearly identical concerns from lecturers and students. These include events that occur over an unreliable internet network, information that cannot be supplied in its whole at every meeting, the lack of accompanying media tools in online learning activities, and the difficulty of controlling student learning activities (Widiyono, 2020).

Several studies on the blended learning model of the online system and practicum to improve cognitive and psychomotor abilities have been conducted, with results indicating that the learning model of the combination of online systems and practicum has a significant and effective effect on improving cognitive aspects (N-Gain = 56.4%), In addition to psychomotor characteristics (N-Gain = 81.77%). The online system learning model paired with practicum can be applied in the Covid-19 outbreak situation, according to the study's findings. The practicum should be organized and carried out in groups based on the proximity of the students' homes to the practicum place (Suseno et al., 2021). Another study in the medium category looked at the level of student anxiety when attending practical lectures via an online learning system. It is vital to pay attention to the availability of learning support facilities so that the online learning process can be used for the learning process in practicum courses (Irwanto et al., 2021). According to his research, practical lectures using online technology were beneficial for up to 75% of total practicum lectures in one semester, with each meeting lasting 1 to 3 hours. Furthermore, research shows that online technology may efficiently deliver up to 75% of total practicum courses in one semester, with each meeting lasting 1 to 3 hours. Google Classroom, WhatsApp, and Meet. Google is the most effective online media, using learning approaches such as conversation and observation. In general, there are no substantial differences between online and offline practicum lectures in terms of learning results (Ananda Saraswati & Mertayasa, 2020). Hariyanti et al. (2020) found that the difficulties students have in implementing online learning may be divided into internal and external barriers. External constraints, such as

internet quotas and the implementation of practicum, are the most prevalent impediments, followed by internal variables, such as students' knowledge of the subject, which are quite constraining. According to Ratnawati and Vivianti (2020), the value of student impressions of practicum lectures online is favorable, with an 80 percent perception rate, through three components: teaching and learning process components, lecturers' abilities components, and facilities and infrastructure components. According to the study's description, the goal was to find out what students thought about the introduction of online computer practicum learning.

METHODOLOGY

This type of1 study employs a qualitative descriptive method, which entails administering a survey in the form of a questionnaire to students enrolled in the Islamic Broadcasting Communication Study Program FUAD IAIN Curup class 2019/2020 via an online Google Form, with a sample size of 58 people selected using a random sampling system. Students enrolled in visual communication design classes are required to employ descriptive approaches as analysis tools.

RESULTS AND DISCUSSION

The following image depicts the results of data analysis from the distribution of questionnaires to semester V students in class 2019/2020 who participated in online computer-based practicum learning, as seen from the perspectives of materials, learning devices, network availability, and task delivery during learning:

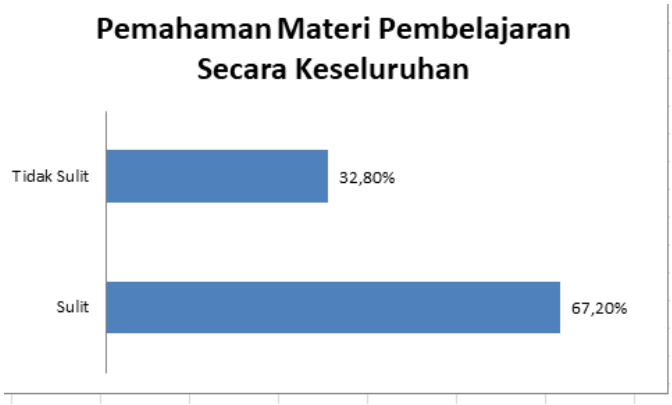

Figure 1: Perceptions of Students Understanding of Learning Materials in General

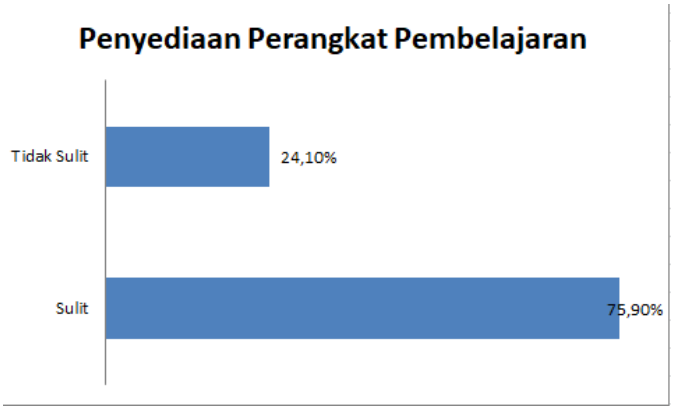

Figure 2: Perceptions of Students Regarding the Provision of Learning Devices

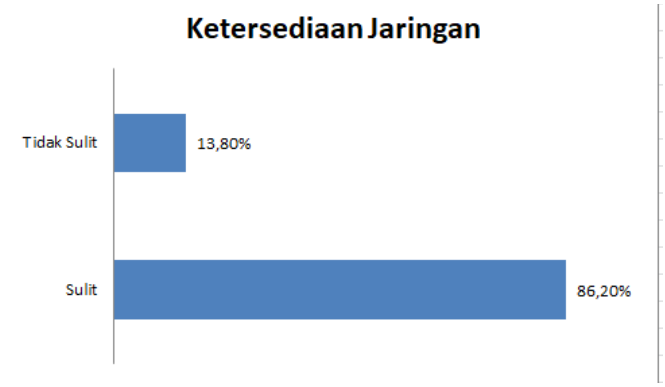

Figure 3: Perceptions of Network Availability by Students

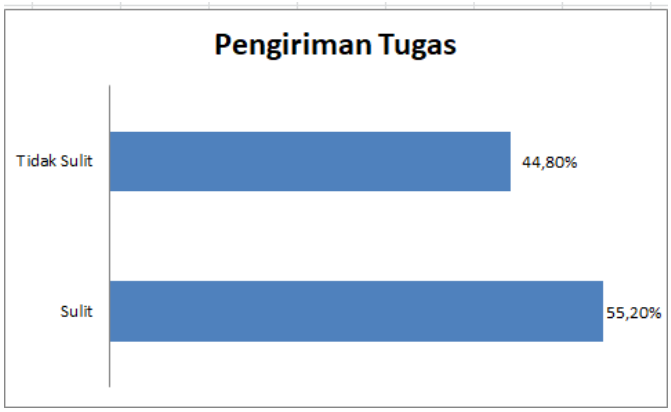

Figure 4: Student Perceptions of Assignment Delivery

Based on student judgments of overall mastery of learning materials (see figure 1), the survey findings revealed that 67.2 percent of students said it was difficult to comprehend the information as a whole. This is in line with Septiani's research (2020), which shows that pupils' mastery of the content is at a basic level. This has a lot to do with how the material is presented, how it is delivered, and how professors and students interact during online learning activities like question and answer sessions and debates. According to interviews with several students, the material presented is still in the form of modules in the form of text, which makes it difficult for students to understand the material as a whole because it does not provide visualization of the stages that must be completed. Lecturers are expected to be able to give information in the form of audio-visual tutorial videos. In his research, Prasetia (2016) discovered that audio-visual media had a considerable impact on learning results. Online learning, in particular, places a higher demand on students' independence in doing practicums. According to students, instructors are still more dominant in using the lecture approach than demonstrations when delivering material, thus students do not acquire a full picture of the practical phases. The restricted time available, along with practical activities that could not be directly examined throughout the learning process, limited the question and answer activities and conversations.

Figure 2 depicts student perceptions on the availability of learning devices, the survey results suggest that up to 75.9% of students find it difficult to supply learning aids, including both hardware and software. The majority of students indicated that their computer equipment was not capable of supporting independent practicum. Students will find it challenging to adapt to the material in the module because the existing software is not the same as that utilized by instructors. Students, unlike those who use personal computers in school labs, use computer equipment that is the same in terms of hardware and software.

According to figure 3 (students' perceptions of network availability), the survey found that 86.2 percent of students said quotas and internet networks were barriers to learning. According to the findings of interviews, students who live in rural areas have a hard time participating in online-based practical learning. Students are less motivated to participate in learning when networks come and go frequently. Septiani's research (2020) also found that students' feelings about online learning are often negative. Quotas are expensive to provide, and professors frequently use learning programs that quickly deplete student quotas. Other studies have found that internet connectivity, online material with frequent errors, and limited internet capacity are all issues that students experience when learning online. The majority of students struggle to keep up with online studies. When studying online, many students claim to be bored and less attentive. Students prefer online material that is cost-effective in terms of quotas, does not require a robust network, and is simple to use (Widodo & Nursaptini, 2020).

Based on student perceptions of assignment delivery (figure 4), as many as 55.2 percent of students have problems sending assignments. According to the findings of student interviews, offering assignments in the form of videos with huge file sizes, as well as the availability of networks to enable the smooth delivery of assignments, has become challenging for students. Due to a limited internet network, assignments are occasionally not provided on time or at all. According to Widiyono (2020), the online learning process is less successful due to students' lack of grasp of the material and the number of activities assigned to them.

Online-based computer practicum learning, on the other hand, can have a good impact on student independence and inventiveness. According to the findings, 93.1 percent of students are more autonomous in seeking additional material as a supplement to the module's explanation via the internet in the form of other modules or video tutorials. According to research Kusuma (2020), the use of online learning has a good impact on students' learning independence. And 87.9 percent of students can be more creative in performing the provided work. Online learning, according to Handarini and Siti Sri Wulandari (2020), makes students more independent since it emphasizes student centeredness. They are more willing to share their thoughts and opinions. According to other research, students or participants that participate in online-based learning are more independent in creating learning goals, diagnosing learning needs, having confidence and responsibility, and completing self-evaluations (Sobri et al., 2020).

CONCLUSION

The findings revealed that the majority of students believed that implementing online-based computer practicum learning was difficult. The material aspect, learning tools, network availability, and task delivery during learning are all factors to consider. To overcome the limited resources owned by students, appropriate online computer practicum learning strategies are required, such as providing material in the form of video tutorials, using e-learning assisted by digital laboratories based on remote access, and using e-learning assisted by digital laboratories based on remote access.

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