Students' Perceptions of Practicum Learning Media Used During the Covid-19 Pandemic

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A R T I C L E   I N F O

A B S T R A K

Masalah yang melatarbelakangi penelitian ini yaitu adanya perkuliahan praktik di perguruan tinggi yang tidak dapat dilakukan secara langsung karena pandemi covid-19. Akibatnya, pembelajaran praktik dilakukan secara online. Penelitian ini bertujuan untuk menganalisis persepsi mahasiswa terhadap media pembelajaran praktik yang dilakukan secara daring selama pandemi covid-19 dan kendala yang dihadapi mahasiswa dalam mengikuti pembelajaran praktik daring selama pandemi covid-19. Penelitian ini menggunakan metode deskriptif dengan pendekatan kuantitatif. Data penelitian dikumpulkan menggunakan survei melalui angket online menggunakan google form. Responden penelitian terdiri atas mahasiswa sebanyak 314 orang. Data penelitian dianalisis menggunakan teknik analisis deskriptif. Temuan penelitian menunjukkan bahwa mahasiswa memiliki persepsi yang baik terhadap pemanfaatan media pembelajaran praktik yang dilakukan secara online selama pandemi Covid-19. Media yang paling sering digunakan dan disukai oleh mahasiswa adalah Zoom. Kendala utama yang dirasakan oleh mahasiswa selama pembelajaan online yaitu jaringan internet yang tidak stabil, sehingga mahasiswa tidak dapat mengikuti pembelajaran praktik secara maksimal. Kebaruan dalam penelitian ini adalah untuk mengetahui persepsi mahasiswa dalam penggunaan media praktikum daring yang belum dilakukan oleh peneliti sebelumnya. Implikasi dari penelitian ini adalah media pembelajaran online dapat digunakan sebagai alternatif media pembelajaran praktikum selama pandemic covid-19.

A B S T R A C T

The problem behind this research is that there are practical lectures in tertiary institutions which cannot be carried out in person due to the Covid-19 pandemic. As a result, practical learning is carried out online. This study aims to analyze student perceptions of practical learning media carried out online during the Covid-19 pandemic and the obstacles faced by students in participating in online practical learning during the Covid-19 pandemic. This study uses a descriptive method with a quantitative approach. Research data was collected using a survey via an online questionnaire using the Google form. The research respondents consisted of 314 students. Research data were analyzed using descriptive analysis techniques. The research findings show that students have a good perception of the use of practical learning media conducted online during the Covid-19 pandemic. The media most often used and liked by students is Zoom. The main obstacle felt by students during online learning is an unstable internet network, so students cannot take part in practical learning to the fullest. The novelty in this study is to find out students' perceptions of using online practicum media that have not been carried out by previous researchers. The implication of this research is that online learning media can be used as an alternative to practicum learning media during the Covid-19 pandemic.

1. INTRODUCTION

Vocational education places great emphasis on the importance of developing practical aspects. When developing the practical aspect, special emphasis is placed on activities that teach students experimental methods, how to synthesize observations, a range of communication skills, and laboratory practices. Ideally practical learning is carried out directly to train students' skills (Mason, 2020; Rizaldi & Fatimah, 2020; Silaban & Rizal, 2020). However, the COVID-19 pandemic caused practical learning to experience obstacles and difficulties because students and lecturers were unable to carry out practicums in the laboratory (Fjellström, 2014; Sangsawang, 2020; Syauqi et al., 2020). It is because schools are closed and universities must follow government policies to implement large and small-scale social restrictions (Heriansyah et al., 2022; Ho & Gatto, 2020; Jumareng et al., 2021; Khachfe et al., 2020; Mishra et al., 2020; Qazi et al., 2020; Setiawan et al., 2021).

As a result of this restrictive policy, educational institutions must quickly adopt e-learning with distance education mode (Gamage et al., 2020; Morgan, 2020; Rahmatunisa et al., 2022). Although this approach works well, it can only build students' knowledge (Hamburg, 2021; Hoerunnisa et al., 2019). Meanwhile, the

development of students' laboratory practical skills is still very minimal, which is a limitation of this approach. For example, when lectures are held directly in the laboratory, students often encounter various field problems such as expensive and complicated types of instruments and machines. However, if lectures are conducted in distance learning mode, students will not understand the ins and outs of practical material properly. For this reason, it is important to pay attention to how universities are currently implementing practical experiments with students and what approach should be taken during the COVID-19 pandemic, especially to achieve learning outcomes by maintaining a quality educational experience.

To improve quality education experience, learning activities need to pay attention to the effectiveness of learning (Huang et al., 2017; Mauliate et al., 2019; Wulandari et al., 2020b). It is the extent to which the learning objectives that have been set can be achieved as expected. Effectiveness in general emphasizes the extent to which predetermined learning objectives are achieved (Agbenyegah & Dlamini, 2019; Bahasoan et al., 2020; Müller et al., 2018). The characteristics of learning effectiveness are success in delivering students to achieve predetermined instructional goals, providing interesting learning experiences, actively involving students to support the achievement of instructional goals, and having facilities that support the teaching and learning process. Effectiveness can be measured by looking at students' enthusiasm for learning activities (Dinh & Nguyen, 2022; Purba, 2021; Tapung et al., 2018). The effectiveness of the learning method is a measure related to the level of success in the learning process. Not only that but the effectiveness of learning is also related to the process and its supporting facilities. It is hoped that the effectiveness of practical learning in remote mode is equivalent to learning through face-to-face mode (Ke & Kwak, 2013; Kebritchi et al., 2017; Mishra et al., 2020).

One way that can be used to determine and improve the effectiveness of online learning is by understanding student perspectives on how to learn online and making changes in the learning process (Mariono et al., 2021; Nakhriyah & Muzakky, 2021). The researched student perceptions of online learning media that they liked and disliked during the Covid-19 pandemic. The research found the top 3 most preferred media, namely WhatsApp Group at 41.7%, Google Classroom at 28.2% and Google Meeting at 8.7% (Ferdiana, 2020). While the top 3 most disliked media are Zoom at 53.4%, YouTube at 15.6%, and Moodle at 12.6%. The results of this study support the research who concluded that 46.4% of students prefer the WhatsApp application because it is easy to access, responds quickly, and saves internet quota (Hakim, 2020). Similar research found that WhatsApp is the most widely used e-learning platform in Indonesian universities because of its accessibility and affordability (Harahap & Rusli, 2021; Tauhidah et al., 2021).

Different results were presented by other research that students have a good perception of online learning media and the online learning media that students are most interested in is virtual meeting learning media using Google Meeting (Putra, 2021; Trisnawati et al., 2021). Apart from the impact of the pandemic in today's global economy, learning through digital networks and the use of digital media is becoming increasingly important in both personal and professional life (Küsel et al., 2020; Rocha, 2019; Wandik et al., 2021). Person's perception, namely the actor's perception factor, the perception target, and the perception situation. Perception factors include attitudes, motives or needs, interests or interests, past experiences, and expectations. Novelty, movement, sound, size, background, and proximity are included in the target perception factors, namely the factors contained in the stimulus. The third factor is the perception situation which includes time, physical conditions, and social conditions in the perception-making environment when perceptions are formed.

The novelty of this study is to find out the perception of students in the use of online practicum media which has not been done by previous researchers. This research is different from another research that has been done before. Previous research has focused on theoretical learning constraints. Meanwhile, this research focuses on students' perceptions of practical learning media carried out online during the covid-19 pandemic. Analysis of student perceptions of online practice learning media is very important to improve the effectiveness and quality of online learning during the Covid-19 pandemic.

Therefore, this study aims to provide an overview of vocational students' perceptions of the effectiveness of online learning because 60% of the learning process in vocational education is carried out through hands-on practice in laboratories and the field. Student perceptions are an important variable to use in evaluating the learning process to improve student learning experiences (Made & Mahardika, 2021; Mukarromah & Wijayanti, 2021; Nilzam Aly et al., 2022; Setiyono et al., 2021; Syauqi et al., 2020). For this reason, an analysis of online practical learning is needed to have a good understanding of student learning styles and comfort in online practice (Chang et al., 2014; Erliana et al., 2021; Yalavaç & Samur, 2016). This research is very significant because there has never been a change in the use of practical online learning due to the Covid-19 pandemic, especially in vocational education. The findings of this study are expected to provide a positive theoretical contribution related to the use of online practicum learning media. Student perceptions of practicum learning media during online learning need to be explored to be noticed by lecturers who use online lectures in subsequent lectures. In addition, these findings can also be used as a guideline for designing practical online learning media in vocational education based on student perceptions.

2. METHOD

This study uses a descriptive method with a quantitative approach. This research was conducted at the Applied Undergraduate Study Program/D4 Faculty of Economics, Universitas Negeri Yogyakarta. The population in this study were all students of the D4 Study Program, Faculty of Economics, UNY which consisted of the D4 Accounting Study Program, D4 Office Administration, and D4 Marketing Management at the Wates Campus and Gunung Kidul Campus Class of 2019-2021. The total population of students for 2019-2021 applied undergraduate program is 1260 students. From the population, 314 students were randomly sampled, or 24.9%. Sampling is done by a simple random sampling technique. In this study, data were obtained by distributing questionnaires to respondents, namely D4 Accounting, D4 Office Administration, and D4 Marketing Management students who were selected as samples. Data collection is done online using a questionnaire packaged in a google form format. The questionnaire in this study used a multilevel scale with five answer choices. Based on the indicators of student perceptions of online practice learning media during the Covid-19 pandemic, a questionnaire was compiled. The questionnaire has been compiled based on the previously created grid. The questionnaire consists of 22 closed questions about student perceptions, open questions about the identity of respondents, learning media that are often used, student obstacles in online practicum learning, and student suggestions about online practicum learning. The lattice of research instruments used in this study is presented in Table 1.

Table 1. Blue Print of Student Perceptions of Online Practicum Learning Media

No.	Indicators	Statement item
1.	Display of practicum learning media	1-8
2.	Ease of use learning media	9-12
3.	Suitability of media to learning objectives	16-22
4.	The usefulness of learning media to improve practicum competence	13-15

The validity of the questionnaire was tested by an expert judgment. The results obtained indicate that all questionnaire items are valid so that they can be used as a questionnaire on student perceptions of online practicum learning media. Based on the results of the calculation of the internal consistency of the 22 items regarding student perceptions of online practicum learning, the results showed that the 22 questionnaire items were consistent because they had a rxy value of 0.27. After testing the validity of the student's perception of the questionnaire on the students' online practicum learning media, 22 valid questionnaires were obtained. A valid questionnaire item is then tested for reliability, the results of the reliability test show the magnitude of the alpha coefficient of 0.96, which is greater than the required reliability index, which is 0.70. Therefore, the questionnaire on student perceptions of online practicum learning media is said to be reliable and can be used as an instrument to measure student perceptions of online practicum learning media.

Data analysis was carried out in a quantitative descriptive manner by first grouping the incoming data and then presenting it into tables according to predetermined criteria. The selection of this data analysis technique is based on the research objectives that have been determined, then the data analysis technique used is a descriptive analysis which includes the editing process, tabulation, analysis and interpretation, and conclusions. At the editing stage, check the completeness of the data from the questionnaire. If the respondent's answer is incomplete, the researcher will contact the respondent again to complete the answer to the questionnaire. The method is done so that respondents' answers can be used as valid and comprehensive information on the aspects being studied. The tabulation stage is data management by moving the answers contained in the questionnaire into a table. The data is then processed and analysed descriptively by displaying the percentage. The analysis and interpretation stage are the process of analysing data that has been processed verbally so that the research results are easy to understand. To make it easier to identify, benchmarks of the ideal mean (Mi) and ideal standard deviation (Si) are used using the scale from (Trisnawati et al., 2021). Guidelines in determining the criteria or classification showed in Table 2.

Table 2. Classification Guidelines

Score	Formulation	Range	Classification
5	Xi + 0,6 SBi < X	4.21 – 5.00	Very good
4	Xi + 0.6 SBi < X < Xi +1.8SBi	3.41 – 4.20	Good
3	Xi – 0.6 SBi < X < Xi +0.6 SBi	2.61 – 3.40	Enough
2	Xi + 1.8 SBi < X < Xi-0.6 SBi	1.81 – 2.60	Not Good
1	X < Xi – 1.8 SBi	0 – 1.80	Very Not Good

The last stage is concluding, namely providing conclusions from the results of data analysis obtained in the research process. These results are then presented in the description of the research results and discussion in chapter 4 which is strengthened by various supporting references.

3. RESULT AND DISCUSSION

Result

After distributing the questionnaires to the respondents, the respondent's description data was obtained. Based on the data above, it can be seen that based on the study program, respondents from the D4 Accounting study program 102 respondents (32.5%), D4 Office Administration as many as 107 respondents (34.1%), and respondents from the D4 Study Program. Marketing Management as many as 105 respondents (33.4%). Based on this number, the largest number of respondents is the D4 Office Administration Study Program.

The gender of the respondents who filled in was dominated by female respondents, namely 217 people (69.1%), and male respondents, namely 97 people (30.9%). Meanwhile, based on the island of residence, the majority of respondents live in Java with a percentage of 96.8% and the rest live on the islands of Sumatra, Kalimantan, and Lombok. The internet providers used by respondents during online learning during the Covid-19 pandemic were quite diverse. The highest percentage is Telkomsel which is 23%, home Internet 18%, Indosat 17%, and the rest of the respondents use other providers such as XL, Axis, 3, Smartfrend, and By.U. Meanwhile, based on the respondents' laptop ownership data, it was found that 97% of respondents had a laptop/PC at home and the remaining 3% did not have a laptop. This data shows that during online learning not all students have laptops. The results of distributing questionnaires about online practicum learning media during the Covid-19 pandemic that has been filled out by students, showed in Table 3.

Table 3. Recapitulation of Student Perceptions of Online Practicum Learning Media

No	Statement	Mean	SD
1	Practicum learning media that used has clear appearance	4.13	0.693
2	The text on the practicum learning media can be read clearly.	4.26	0.683
3	The images on the practicum learning media can be seen clearly.	4.22	0.701
4	(If any) videos on learning media practicum has a clear sound and display	4.19	0.75
5	(If any) The audio on the practicum learning media can be heard clearly.	4.17	0.705
6	Practicum learning media that used as an attractive color display.	4.08	0.715
7	I enjoy using practicum learning media during online learning.	3.87	0.801
8	Interactive practicum learning media	3.91	0.792
9	Practicum learning media can be accessed online by students.	4.27	0.727
10	There are instructions for using online practicum media.	4.19	0.716
11	Practicum learning media must be accessed offline.	3.54	1.11
12	Practical learning media can be used independently by students.	4.11	0.800
13	The lecturer explained how to use practicum learning media.	4.19	0.709
14	Lecturers provide feedback on practicum results through online practicum learning media.	4.10	0.794
15	Students can use features/menus on practicum learning media easily.	4.09	0.732
16	Practicum learning media that used by the learning objectives.	4.18	0.691
17	The practical learning media used is by technological developments.	4.27	0.672
18	Media learning practicum that used according to the learning material.	4.23	0.699
19	Practicum learning media can improve skills through the learning material.	4.22	0.719
20	The practicum learning media used can increase knowledge through the learning material.	4.24	0.673
21	The practicum learning media used can improve work attitudes through the learning material	4.19	0.713
22	Practicum learning media can improve the ability to use information technology.	4.35	0.677

Based on the Table 3, it can be seen that the highest score is on item 22 with a mean of 4.35. This indicates that the practicum learning media according to students' perceptions can improve the ability to use information technology. The second highest average is item number 17 which contains a statement of practicum learning media used by technological developments with a mean of 4.27. Meanwhile, the lowest mean is on the 11th item with a mean of 3.54 with the Learning Media questions must be accessed offline. Based on the low mean obtained, it is possible because the majority of online practicum learning media during the Covid-19

pandemic were accessed online. The statement item that received the second lowest score was item number 7 which reads that I am happy to use practicum learning media during online lectures. The low mean is possible because students prefer to be able to do practicum offline rather than online. The results of data processing per indicator used as a basis for assessing student perceptions of online practicum learning media during the Covid-19 pandemic can be displayed in Table 4.

Table 4. Average Student Perceptions Per Indicator in Each Study Program

No	Study Program	Display of Practicum Learning Media	Ease of use of Learning Media	Suitability of Media to Learning Objectives	The usefulness of learning media to improve practicum competence
1.	D4 Accounting	4.13	4.14	4.29	4.35
2.	D4 Office Administration	4.15	4.09	4.26	4.27
3.	D4 Management Marketing	4.03	3.98	4.12	4.14
	Average	**4.10**	4.07	4.23	4.25

Based on the Table 4, it can be seen that based on the indicators of the display of practical learning media, an average of 4.13 was obtained for the D4 Accounting Study Program, the D4 Office Administration Study Program with an average of 4.15 and the D4 Marketing Management Study Program got a score of 4.03. Based on this average, it can be concluded that all study programs on the indicators of the display of practicum learning media are in a good category. On the indicator of ease of use of learning media, it is known that the D4 Accounting Study Program earned an average of 4.14, the D4 Office Administration Study Program obtained an average of 4.09 and the last position was the D4 Marketing Management Study Program with an average of 3.98. From these data, it can be concluded that on the indicators of ease of use of learning media, all study programs are in a good category.

The indicator of the suitability of the media with learning objectives in the D4 Accounting Study Program got an average of 4.29, the D4 Office Administration Study Program got an average of 4.26, and the D4 Marketing Management Program with an average of 4.12. Based on these results, it can be seen that the indicators of the suitability of the media with learning objectives in the D4 Accounting and D4 Office Administration study programs are in the very good category, while the D4 Marketing Management Study Program is in a good category. The last indicator to measure students' perceptions of online practicum learning in this study is the use of learning media to improve practicum competence. In this indicator, the D4 Accounting and D4 Office Administration Study Programs are in the very good category with an average of 4.35 and 4.27. Meanwhile, the D4 Marketing Management study program is in a good category with an average of 4.14.

The average results of each indicator in each study program show that the indicators of the display of practical learning media and the ease of using learning media are in a good category with an average of 4.10 and 4.07, while the indicators of the suitability of the media with learning objectives and the usefulness of learning media to improve practicum competence are in the very good category with an average of 4.23 and 4.25. In addition to data per indicator, students' perceptions of the overall online practicum learning media have also been obtained. Based on data analysis, it can be seen that the average student perception of online practicum learning media during the Covid-19 pandemic is 4.14. From these results, it can be concluded that students' perceptions of online practicum learning media at the Faculty of Economics, UNY are in a good category.

The average student perception of online practicum learning media for each study program at the Faculty of Economics, Yogyakarta State University. Based on the results of data processing, the average student perception for the D4 Accounting Study Program is 4.19, the D4 Office Administration is 4.17 and the D4 Marketing Management is 4.05. Therefore, it can be concluded that the online practicum learning media in each D4 study program at the Faculty of Economics is in a good category. From the results of filling out questionnaires conducted by respondents, it was obtained data that during online practicum learning students used various kinds of learning media. The media used during online learning are Zoom, Google meet, WhatsApp Group, LMS (Besmart, Google Classroom, Schoology), YouTube, Telegram, Podcast, Quizizz, Application-based, Typingstudy.com, Typing.com, Rapid Typing, MYOB, Accurate, Microsoft Word, Microsoft Excel, Microsoft Teams, Google Drive, and Video. The results of the descriptive analysis of the online practicum learning media that students like the most are presented in Table 5.

Table 5. Learning Media During Online Practicum

	Frequency		Percent	Valid Percent	Cumulative Percent
Valid	Zoom	141	44.9	44.9	44.9
	Google Classroom	38	12.1	12.1	57.0
	Besmart	31	9.9	9.9	66.9
	Google Meet	32	10.2	10.2	77.1
	WA Group	40	12.7	12.7	89.8
	Others	19	6.1	6.1	95.9
	Video	13	4.1	4.1	100.0
	Total	**314**	**100.0**	**100.0**	

Table 5 show that the online practicum learning media most favoured by students are Zoom with a percentage of 44.9%, Google Classroom (12.1%), WA Group (12.7%), Google Meet (10 .2%), Video (4.1%) and other media by 6.1%. Media belonging to other categories include Accurate, Microsoft Excel, and web-based applications (Typing.com). Respondents' answers to open-ended questions indicate that in the implementation of online practicum learning at the D4 Study Program, Faculty of Economics, UNY, there are several obstacles experienced by students. During online learning there are several obstacles experienced by students. These obstacles include signal interference, running out of quota, power failure, weather, interference from home, laptops that do not support, difficulty focusing, difficulty understanding the material, not getting direct feedback from lecturers, lack of learning facilities at home, boredom, website errors, the delivery of material is too fast by the lecturer, it takes time to understand the instructions for using practicum media and the lack of interaction between lecturers and students.

The obstacles faced by students during online practicum learning in table can be classified based on the source of the problem, namely internet access, technical problems, lecturer learning models, internal constraints, and limited learning facilities. The sources that become obstacles for students in practical learning are internet access (unstable network/signal, limited internet quota, website errors), technical problems (power failure, weather, interference from home), and learning models (not getting feedback). lecturers directly, delivery of material is too fast and explanations from lecturers are not clear and minimal interaction between lecturers and students), internal constraints (bored and lack of motivation), limited learning facilities (laptops often have problems, laptops are full, lack of learning facilities at home).

Discussion

Student perceptions of practicum learning media used during the Covid-19 pandemic in the D4 Study Program of the Faculty of Economics were in a good category with a score of 4.14. The results of the analysis per indicator in each study program show that in the D4 Accounting and D4 Office Administration Study Programs, the indicators for displaying practicum learning media and the ease of using learning media are in a good category. The indicators of the suitability of the media with the learning objectives and the usefulness of the media to improve practicum competence were considered very good by students in the two study programs. Meanwhile, students of the D4 Marketing Management Study Program assessed that in each of these indicators, the practicum learning media was in a good category. These results indicate that students have a positive perception of the online practicum learning media used during the Covid-19 pandemic. These findings theoretically support previous research which concluded that students' perceptions of e-learning were positive and students accepted the new system of lessons during the Covid-19 pandemic (Dhika et al., 2019; Jumareng et al., 2021; Priatna et al., 2020; Wulandari et al., 2020a).

The online practicum learning media used during the Covid-19 pandemic shows that zoom media is in the highest position as the media used in practicum learning (Faisal et al., 2021; Ramadayanti & Adzima, 2022). Zoom is also the most preferred learning media by students during online practicum learning with a percentage of 44.9%, WA Group (12.7%), Google Classroom (12.1%), Google Meet (10.2%), Video (4.1%), and other media by 6.1%. Media belonging to other categories include Accurate, Microsoft Excel, and web-based applications (Typing.com). The results of this study support the research stated that Zoom is the most popular medium for online learning (Baron, 2020; Ferdiana, 2020; Kasman & Hamdani, 2021). The media used by students during online practical learning at the Faculty of Economics of UNY is to research resulted in the finding that the most widely used media during online learning were Google Classroom, Zoom, WhatsApp. Google Classroom was the first choice as the media used in online learning, Zoom was the second choice and WhatsApp was the third chosen media for online learning (Kulal & Nayak, 2020; Suryawan et al., 2021).

Zoom as the most used learning media and the most popular learning media for students is suspected because currently, UNY has facilitated lecturers and students with premium Zoom Meeting subscriptions. The existence of these facilities causes the majority of lecturers to use Zoom media in synchronous online learning

(Faisal et al., 2021; Kasman & Hamdani, 2021; Marsiding, 2021). In addition, as a video conferencing platform, Zoom has complete features compared to other platforms. However, this finding is not following the research which results in the conclusion that students have negative attitudes toward the use of Zoom and perceive it to have a negative effect on their learning experience and learning motivation (Laili & Nashir, 2020). This finding also does not support the findings of research which resulted in the conclusion that Zoom is the platform chosen by a minority of students during online learning (Ningsih, 2020). suggest that educators use a combination of complementary learning media.

The implementation of online practicum learning faces several obstacles experienced by students. According to the source, these obstacles can be divided into five sources, namely internet access (unstable network/signal, limited internet quota, website errors), technical problems (power failure, weather, interference from home), learning models (not getting direct feedback from lecturers, etc.), delivery of material is too fast and explanations from lecturers are not clear and there is minimal interaction between lecturers and students), internal constraints (bored and lack of motivation), limited learning facilities (laptops often have problems, laptop memory is full, lack of learning facilities at home). The obstacles faced by students in online practicum learning are similar to the obstacles faced in online learning in previous studies. Other research concluded that network constraints, limited quotas, and lack of interaction between lecturers and students were the main obstacles in online learning (Muthuprasad et al., 2021; Perera & Abeysekera, 2022; Trisnawati et al., 2021). The limitations of this study are that it was only carried out at the Faculty of Economics, Yogyakarta State University, and has not measured the effectiveness of online practicum learning media in achieving learning objectives. The recommendation for future researchers is to measure the effectiveness of online practicum learning media so that it can be seen which media is the best to support the achievement of online practicum learning.

4. CONCLUSION

Students have a good perception of the use of online practicum learning media during the covid-19 pandemic. Students' preferred media include Zoom, Google Classroom, and WhatsApp Group. Constraints faced by students in online practicum learning include unstable internet networks, technical problems (power failure, bad weather, environmental disturbances, laptop errors), lack of feedback from lecturers, unclear material delivery, and internal obstacles in the form of feelings of boredom and lack of understanding, and motivation.

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