THE LEVEL OF SATISFACTION AND OBSTACLES TO THE USE OF ELECTRONIC LEARNING IN THE FACULTY OF MEDICINE, UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA

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ABSTRACT

The level of satisfaction and obstacles to the use of e-learning can be measured through a questionnaire. The level of satisfaction can be influenced by the student's perception factor which plays an important role in the level of satisfaction of using e-learning in lectures. The level of satisfaction is all conditions and influences from within students on the use of e-learning. The higher the level of satisfaction with the use of e-learning, the higher the interest of students in using e-learning so that they will appear satisfied. ***Objectives:*** *This study aims to determine the level of satisfaction and obstacles to the use of e-learning at UMSU Medical Faculty.* ***Methods*** *: This research is a quantitative descriptive study with a cross sectional design. The research sample consisted of 68 students of FK UMSU class 2019, 2020 and 2021 which were taken using the consecutive sampling method. This study was tested with a satisfaction level questionnaire that has been validated with SPSS, the value of Rcount> Rtable.* ***Results*** *: Overall, the results showed that they were satisfied with students' perceptions of e-learning with a total score of 77.7%. The mean value of the satisfaction level component shows good results on student perceptions of e-learning. The highest obstacles encountered were device errors and server down.* ***Conclusion*** *: Students' perceptions of the use of e-learning are categorized as satisfied and problems are found, especially device errors and server downs .*

Keywords : *e-learning, constraints, level of satisfaction* .

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1. INTRODUCTION

Recently, the world has been shocked by the COVID-19 outbreak since December 2019. Government policy has implemented social distancing, in order to break the chain of spread. This policy has an impact on education in Indonesia, so that educational institutions switch to online learning (e-learning).

In Indonesia, it is known that the level of internet users among students is 89.7%. This is necessary to optimize the use of the internet in education. Virtual classes or better known as electronic-learning (e-learning), have been implemented in various educational institutions in Indonesia, one of which is the Faculty of Medicine, Muhammadiyah University of North Sumatra. Especially the Undergraduate Medical Study Program.

The advantages of e-learning are digital network-based technology in collecting, storing and sharing learning materials that can be accessed at any time, and is equipped with a Learning Management System (LMS) system. E-learning is also useful in increasing students' learning knowledge and improving independent learning. On the other hand, e-learning has disadvantages such as frequent errors and having to be connected to the internet. The obstacles to e-learning that most students often experience are where they live with poor signal and difficulty accessing the internet.

According to research from Ahmad Dahlan University (UAD), the level of student satisfaction using e-learning is 77% of students who are satisfied, 23% of students are dissatisfied. 3 This research also states that internet-based learning (e-learning) is more effective. 10 It is said to be effective because e-learning can address the educational needs of medical students. Therefore, researchers are interested in knowing the level of satisfaction and obstacles to the use of e-learning at FK UMSU.

2. METHOD

This research design uses a quantitative descriptive research method with a cross sectional approach which aims to determine student perceptions regarding the level of satisfaction and obstacles to the use of student e-learning at FK UMSU. The data used is data from FK UMSU students from the classes of 2019, 2020 and 2021 obtained using consecutive sampling technique.

Primary data in this research was obtained by distributing questionnaires directly to respondents via Google Form after completing the questionnaire, then calculating the total questionnaire score for each respondent. Primary data collection in this research was carried out by writing down the total scores of respondents which were accessed from the Google Form questionnaire. This validated questionnaire contains 20 valid statement items that can be answered with 4 answer choices, namely strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS) and is measured using a 1 Likert scale. -4 with a total score of 80. Scores are grouped into 4 categories, namely not satisfied (KP) 0-25, quite satisfied (CP) 25-50, satisfied (P) 50-75, very satisfied (SP) 75-100.

3. RESULTS

This research was conducted at FK UMSU from October 2021 to August 2022. Distributing 68 questionnaires, taking the questionnaires to researchers. The frequency distribution of student perceptions per generation regarding the level of satisfaction and obstacles to e-learning is as shown in the following table.

Table 1. Frequency distribution of student perceptions per generation regarding the level of satisfaction *with e-learning*

Force	Very Dissatisfied	Quite satisfied	Satisfied	Very satisfied
	N(%)	N%	N(%)	N%
2019	0(0)	0(0)	20(90)	2(9)
2020	0(0)	1(5)	15(71)	5(24)
2021	0(0)	0(0)	18(72)	7(28)
Total	0(0)	1(1)	53(77.7)	14(21)

From the results of the mean value based on the questionnaire subscale, namely students' perceptions of the use of *e-learning* in lectures, practicums, SGD, KKD shows good results. The obstacles encountered in the use of *e-learning* can be seen in the following table .

Table 2. Description of the obstacles to the use of *e-learning* for each class of students at FK UMSU

force	*e-learning errors*		Network constraints	
	Yes	No	Yes	No
	N(%)	N(%)	N(%)	N(%)
2019	10(45)	12(55)	5(23)	17(77)
2020	16(76)	5(24)	7(33)	14(67)
2021	21(84)	4(16)	4(16)	21(84)

force	*Server down*		Power failure	
	Yes	No	Yes	No
	N(%)	N(%)	N(%)	N(%)
2019	9(41)	13(59)	10(45)	12(55)
2020	18(86)	3(14)	7(33)	14(67)
2021	19(76)	6(24)	11(44)	14(56)

From the results of the obstacle questionnaire scores, it was found that *e-learning errors* and *server down* got the highest scores spread across the class of 2021 with 84% *e-learning errors* , the class of 2021 with 86% *server down.* The results for each component can be seen in the following table .

Table 3. Description of the level of student satisfaction with the use of *e-learning* in the COVID-19 pandemic era at FK UMSU

No	Component	Average	Percentage
1	Learning tools	3.52	88
2	Learning effectiveness	3.29	82
3	Instructional Media	3.33	83
4	Lecturer skills	3.33	83

| 5 | Student skills | 3.51 | 88 |

From the results of the mean value based on the subscale of the satisfaction questionnaire, namely student perceptions of the use of *e-learning* consisting of components: learning effectiveness, learning tools, learning media, lecturer skills and student skills towards *e-learning* show good results.

4. Discussions

Measurements using satisfaction and obstacle questionnaires which were filled in by 68 respondents from the classes of 2019, 2020 and 2021 stated that students' perceptions of the use of e-learning at FK UMSU were the effectiveness of learning, learning tools, learning media, lecturer skills and student skills. is Satisfied with the distribution of grades in the class of 2019 at 90%, class of 2020 at 71%, class of 2021 at 72%.

In another study conducted by the Faculty of Medicine, Muhammadiyah University of Makassar, the results were obtained with a satisfactory interpretation. This stated that students' good perception of the use of e-learning had a good influence on comfort in the learning process, namely in this study the score was 77% satisfied with the interpretation. positive.

Student satisfaction with the use of e-learning in a good learning process has an impact on student motivation and learning outcomes. The results of the research state that students' perceptions of e-learning are useful, can increase motivation, make it easier to understand the material and help prepare for lectures. Good student perceptions of e-learning play a big role in the implementation of blended learning pattern e-learning as a form of learning that combines e-learning with face-to-face. Students can access teaching materials before entering class with the aim of getting an overview of the lecture activities that will be carried out. This encourages students' perceptions of satisfaction with the use of e-learning.

In this research. Students' perceptions of the components of learning tools are: there are module descriptions in e-learning, book blocks are available, the appearance of lecture topics is interesting, discussion features are available, uploading or downloading teaching materials.

Learning effectiveness is one component of student satisfaction with e-learning. on learning at FK UMSU that e-learning has been effective with the availability of lecture and audio teaching materials, available discussion/chat forums, available practicum teaching materials, available videos teaching basic clinical skills (KKD) and practicums. Learning media are: Teaching materials (lectures, KKD, practicum) in e-learning are available according to the block book schedule, discussion forums are easy to access, teaching materials (practicum, lecture materials and KKD) are easy to access and download. The description of the e-learning module is interesting, such as: audio and audio teaching materials (practicum, KKD and lectures). Students can easily download teaching materials and access e-learning anytime and anywhere. This supports the perception of satisfaction with e-learning at FK UMSU.

Lecturer skills in utilizing e-learning such as lecturers presenting lectures on e-learning well and on time, lecturers can use features in e-learning, lecturers can create teaching materials such as (power points with audio, teaching videos), lecturers are able to present learning interactive ones in e-learning. Student skills such as easily downloading teaching materials and accessing e-learning anytime and anywhere, students can easily collect/upload assignments on e-learning, students can access quizzes or other exams on e-learning, students can view exam schedules easily on e-learning .

The results of the research conducted at FK UMSU were said to be satisfactory because the e-learning student skills component was placed independently and could be accessed at any time by students and they could download and save lecture learning materials whenever and wherever, which created convenience for students. The flexibility of e-learning internet can turn education into a lifelong learning process. Learn flexibly because large amounts of lecture

teaching materials are stored and can be accessed by students anytime and anywhere, so students can study independently and can choose what they want to learn.

This makes it possible for students to study, read and understand teaching materials repeatedly until they are satisfied. The video and audio materials used by e-learning make the entire learning process more enjoyable. This helps students to remember the things they learn for a long time. pushing student perceptions into the satisfied category in utilizing learning using e-learning.

There are two obstacles encountered in the use of student e-learning at FK UMSU with research results, namely e-learning errors with research results of 84% in the class of 2021 and server down research results of 86% in the class of 2020. This indicates that there are obstacles to utilization of e-learning at FK UMSU. These two obstacles are in accordance with previous research, namely that the use of e-learning has problems such as errors and server downtime which are quite big obstacles, so they become obstacles in learning using e-learning.

These two biggest obstacles cause the quality and motivation of student learning to decrease when using e-learning so that students become lazy about using it. Low motivation is an obstacle because students themselves are responsible for their learning independently. This can cause laziness for students. Obstacles in network connections are the most vulnerable to becoming an obstacle for every student, due to inadequate connections and internet difficulties in the place where they live so that the devices used often have errors.

It is known that e-learning depends on technology delivered using computers. So when the internet connection is bad, server errors and server downs create obstacles in the learning process. Plus e-learning does not have two-way communication like traditional classes which have two-way communication like face-to-face classes which have two-way communication. The weakness of this research is that this research only examines the level of satisfaction and obstacles to using e-learning, while there are many other external and internal factors, namely student academic achievement, such as learning motivation, learning style, quality and quantity of learning. This can be a consideration if you want to continue this research, so you can see a broad picture of the factors that can influence online learning.

REFERENCES

1. Gunawan and Ls. The Impact Of Covid-19 Pandemic On Learning Implementation Of Primary And Secondary School Levels P. Indonesia J Elem Child Educ. 2020;1(D):58-63
2. Maatuk Am, Elberkawi Ek, Aljawarneh S, Rashaideh H, Alharbi H. The Covid-19 Pandemic And E-Learning: Challenges And Opportunities From The Perspective Of Students And Instructors. J Comput High Educ. 2021;(0123456789). doi:10.1007/S12528-021-09274-2
3. Saifuddin Mf. E-Learning in Student Perception. J Varidika. 2018;29(2):102-109. Doi:10.23917/Varidika.V29i2.5637
4. WA Lisa, Wardani, LS Agus De Putu. Level of Readiness for Using E-Learning (E-Learning Readiness) in Undergraduate Medical and Professional Doctor Study Program Students, Undergraduate Medical and Medical Professional Study Program, Faculty of Medicine, Udayana University, Department of Parasitology, Faku. 2021;10(12):40-44. File:///C:/Users/User/Downloads/Document.Pdf
5. Rahma A Aap Devi. National Seminar on Indonesian Language and Literature. Pros of Samasta Semin Nas and E-Learning Literature in the Digital Era. Published Online 2020:56-61. Https://Jurnal.Umj.Ac.Id/Index.Php/Samasta/Article/View/7145
6. Subadi Lc, Sutrisno Tfcw, Bagus Ig, Wiryakusuma Y, Ritunga I. E-Learning Based Learning Training Using the Learning Management System (LMS) Platform at the Faculty of Medicine, Ciputra University. J Community Serv Consort. 2020;1(1):126-131.
7. Al Munawar A, Fuadaturrahmah F. Level of Student Satisfaction with the Use of E-Learning Media in the Covid-19 Pandemic Era. Cheds J Chem Educ Sci. 2021;5(1):1-5.
8. Margaretha Evi Yuliana, Novemy Triyandari Nugroho Np. Utilization of E-Learning as a Communication Media in the Learning Process of Duta Bangsa University Students, Surakarta. J Indonesia Sos Teknol. 2021;2(6):6.

9. Indrayana B, Sadikin A. Application of E-Learning in the Era of Industrial Revolution 4.0 to Suppress the Spread of Covid-19. Indonesia J Sport Sci Coach. 2020;2(1):46-55. Doi:10.22437/Ijssc.V2i1.9847
10. Wimerta P, Samosir O. Correlation of Internet-Based Learning (E-Learning) on Student Motivation at the Faculty of Medicine, University of North Sumatra. North Sumatra University. Published Online 2021:1-65
11. Darmawan F. Measuring the Level of Satisfaction with the Use of E-Learning. J Speed-Eng Research and Education Center. 2015;7(4):63-71. Https://Ijns.Org/Journal/Index.Php/Speed/Article/View/1378
12. Simaremare Da. Analysis of Student Satisfaction Levels of E-Learning Users Using End User Computing Satisfication. J Infortech. 2020;2(2):250-257. Doi:10.31294/Infortech.V2i2.9257
13. Budiarti Novi Yulia. The Effectiveness of Online Learning Students of Medical Education Muhammadiyah University of Makassar Batch 2019 Effectiveness. Sustain. 2020;4(1):1-9. Https://Digilibadmin.Unismuh.Ac.Id/Upload/13462-Full_Text.Pdf
14. Al Munawar A, Fuadaturrahmah F. Level of Student Satisfaction with the Use of E-Learning Media in the Covid-19 Pandemic Era. Cheds J Chem Educ Sci. 2021;5(1):1-5.
15. Lestari Sw. Obstacles in Implementing Distance Learning (Pjj) During the Pandemic. J Phys A Math Theor. 2020;44(8):287. File:///C:/Users/User/Downloads/Barriers to implementing distance learning.Pdf
16. Albab Su. Analysis of E-Learning Learning Obstacles in the Era of Disruption at Al-Islahiyah Singosari Malang Integrated Vocational School, Shobich Ulil Albab, Uin Malang Postgraduate Student. J Educator Management. 2020;2(1).
17. Wijaya R, Lukman M, Yadewani D, Et Al. The Impact Of Covid19 Pandemics On The Utilization Of E Learning. Dimensions. 2020;9(2):307-322. Https://Www.Journal.Unrika.Ac.Id/Index.Php/Jurnaldms/Article/Viewfile/2543/1790
18. Nano.Gov. E-Learning Benefits And Applications. Nano.Gov. 2016;101(February):1-8. Https://Www.Nano.Gov/You/Nanotechnology-Benefits