

# Satisfaction Level from Digital Learning Implementation Using E-Learning Management System (LMS) UP45 at University of Proklamasi 45

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**Abstract**— Learning process in campus has undergone several fundamental changes since the COVID-19 pandemic. The face-to-face lectures cannot be fully implemented due to the increasing number of COVID-19 cases. The education sector continues to make some improvisation in learning methods. This study aims to measure the level of operational feasibility of a Moodle-based Learning Management System at University of Proklamasi 45 Yogyakarta. This study used Taro Yamane Formula as the sampling method. There are 1517 total students in the population with a minimum sample of 94 (error margin of 10%) requirement (actual sample = 120). The data were obtained from the dissemination of questionnaires, using linked scales processed using SPSS software. The respondents are the students, lecturers and academic staffs as the person in charge of the e-learning platform UP45. This method resulted in a decision on the use of e-learning along with the operational feasibility of the online learning system implemented at University of Proklamasi 45 Yogyakarta. The general conclusion of this study is that the operational feasibility of E-Learning UP45 Yogyakarta, can be used as a digital learning solution during the Covid-19 pandemic. The valid percentage that supports the implementation and maintenance of an online learning LMS-based is 72.5%.

**Keywords**— *pandemic; online learning; learning method; population; questionnaire*

## 1 INTRODUCTION

The changes in the learning paradigm are mandatory in the academic world when facing the COVID-19 pandemic, worldwide educational institutions inevitably adapt to do changes in learning methods, from face-to-face learning systems to online-based learning.

Although online learning is seen as an effective solution in continuing the learning process, practically there still need some basic improvements and evaluations. The limitations of the academic world in conducting online learning are something that needs to be improved to find the right solution in improving online academic services to the students.

Covid-19 pandemic has caused several shifts in the patterns and methods of daily life in society, including Teaching and Learning Activities.

Teaching and learning activities have undergone significant changes in the last two years. The shift in teaching methods from conventional learning to digital learning has reduced the atmosphere and activeness of two-way communication between lecturers and students. Information Technology development facilitates teaching methods, but on the other hand it causes student's activity and lecturers and educators' supervision decrease.

In this study, the right solution will be found in order to increase students' trust in academic institutions during the online learning and teaching, by finding the right method in the learning structure that adapts to the national education curriculum.

Online learning had actually been carried out before the COVID-19 pandemic, but was only limited to the use of groups on internet-based chat platforms. There was no special standard for learning that integrated with the academic system on the University of Proklamasi 45

Within a period of time after the COVID-19 pandemic occurred, the University of Proklamasi 45 academic team has built a special platform for online learning media where all components and learning materials have been fully integrated in one platform called e-Learning Up45. This study will explore the important role of UP45 e-Learning platform in increasing user satisfaction in interacting with the platform in order to carry out the teaching and learning process effective and efficient during this covid19 pandemic.

The author wants to find the best platform solution in the online learning system, because so far there are still several alternative ways of online learning in campus, including the use of zoom, google meet, google classroom, WA groups and several other tools.

This research needs to be done in order to find an online learning platform that is more integrative with the academic system on the University of Proklamasi 45. The unitary system means the integration of student and lecturer accounts along with a learning system that is adapted to the format of the University of Proklamasi 45.

There are several basic theories that form the basis of thought and critical thinking in making this research paper, some of the basic concepts that make up this research are:

### 1.1 Online Learning

The development of information technology has a major influence on changes in every field. One of them is changes in the field of education. Technology can be used in teaching and learning activities, which can be said to be a change from conventional to modern methods. Online learning is a learning system that is carried out not face to face, but using a platform that can help the teaching and learning process carried out even though it is distanced. The purpose of online learning is to provide quality learning services in a massive and open network to reach learning space enthusiasts to be more and wider.

One of the challenges of online learning is expertise in the using of technology to the educators and students. Dabbagh stated that the characteristics of students in online learning activities are [1]:

1. The spirit of learning: the enthusiasm of students during the learning process is strong or high for independent learning. When learning online, the criteria for complete understanding of the material in learning are determined by the students themselves. Knowledge will be found on their own and students must be independent. This means that the independence of each student makes difference in learning success.
2. Literacy on technology: in addition to independence in learning activities, the level of students' understanding of the use of technology is one of the successes of doing online learning. Before online learning, students must master the technology that will be used. The tools commonly used as a means of online/online learning are computers, smartphones, and laptops. Technological developments in the 4.0 era have created many applications or features that are used as a means of online learning.
3. Interpersonal communication skills: In these characteristics, students must master both in communication skills and interpersonal skills as one of the success requirements in online learning. Interpersonal skills are needed to establish relationships and interactions between other students. As social beings, we still need interaction with others even though online learning is carried out independently. Therefore, interpersonal skills and communication skills must be trained in social life.
4. Collaborate: understand and use interaction and collaboration learning. Students must be able to interact with other students or with lecturers in a provided forum, because in online learning the students are alone themselves. This interaction is needed especially when students have difficulty understanding the material. Apart from this, interactions also need to be maintained in order to train their social spirit. So that the spirit of individualism and anti-social is not formed in students. With online learning, students are also able to understand collaborative learning. Students will also be trained to be able to collaborate either with the surrounding environment or with various systems that support online learning.



5. Skills for independent study: one of the characteristics of online learning is the ability to learn independently. Independent learning is very necessary in online learning, because during the learning process, students will search, find, and conclude for themselves what they have already learned. "Independent learning is a process where students are directly involved in identifying what needs to be learned to be in control of the learning process". When learning independently, motivation is needed to support the success of the online learning process [1].

Media education as a means of improving the quality of education is very important in the learning process. Learning media facilitates the transfer of knowledge from teachers to students. The use of educational media can enhance the learning process of students in the teaching and learning process which in turn can enhance the achievement of learning outcomes. Educational media can be in the form of models/props, flowcharts, tables, and computer-based media. Learning media can help students understand and apply learning concepts, so that learning objectives can be achieved by students. The more open and flexible strategy in formal education is the media computer-based learning. Computers as educational and training tools have helped shape the educational environment. Computer-based learning media can develop student skills to make learning media using computers in the learning process plays an important role, such as interactive multimedia learning, animation media, mobile learning, e-learning that combines flipped classroom, virtual lab and many other computer-based learning media that are currently developing [2].

### 1.2 Lecturer Performance

Lecturers as educators (educators), have the following activities abilities: (1) achieving as a teacher and educators (for 12 semester credits), (2) guiding students, (3) producing textbooks (4) producing ISBN standard books, (5) managing activities independently and in groups of lecturers, (6) following the development of science and technology, (7) providing examples of good teaching/guidance. Lecturers as researchers must have the following abilities: (1) develop research programs individually and in groups, (2) carry out internal and external research, (3) produce internal and external research works, (4) produce large-scale publications nationally and internationally. Lecturers as community service personnel, have the ability to include: (1) managing community service activities, (2) preparing proposals for community service, both internal and external, (3) carrying out community service, (4) producing works of community service to society. Lecturers as administrators have administrative management skills including: (1) teaching and learning activities, (2) doing research, (3) doing community service, (4) doing higher education tridharma activities, (5) achieving credit points for lecturer career paths, (6) doing correspondence [3].

### 1.3 Student Satisfaction

The word satisfaction comes from the Latin "satis" (means: good enough, adequate) and "facio" (do or make). Satisfaction can be interpreted as "an effort to fulfill something" or "make something adequate". Satisfaction is originally said to be satisfied, which means feeling happy, relieved, full, and so on because you have had enough or your heart's desires have been fulfilled. Students in the Big Indonesian Dictionary are defined as people who study in higher education. Student satisfaction is a state of fulfilling the desires, hopes, and needs of students. Student satisfaction is a student's positive attitude towards the services of higher education institutions because there is a match between the expectations of the service compared to the reality they receive. The student satisfaction is a comparison between the expectations that students want about employee services, lecturer competencies supported by infrastructure and leadership with what students feel after getting service [3].

### 1.4 E – Learning

According to UNESCO 2020 [4], Various advantages offered by e-learning makes this learning model widely used by educational institutions in various countries. Especially during the COVID-19 pandemic, where the massive spread of the virus had a huge impact on the education sector. Currently, as many as 138 countries in the world have eliminated learning activities in schools and universities due to COVID-19. Basically from data Kemdikbud 2020 [4], The COVID-19 pandemic has forced 1.5 billion students and 63 million teachers in the world to change from face-to-face learning to distance learning or online. This change also occurred in Indonesia, marked by the issuance of the Minister of Education and Culture Decree Number 36962/MPK.A/HK/2020 concerning Online Learning and Working from Home in the Context of Preventing the Spread of COVID-19. There are instructions to makes all face-to-face learning, both formal and non-formal during the pandemic, turn into online learning, by utilizing virtual learning and video conferencing platforms such as Google Classroom, Zoom, or other Learning Management Systems. Now, the learning process is carried out using gadgets that can be accessed anytime and anywhere. The interaction between lecturers and students during the lecture process is connected via an internet connection, where lecturers teach in front of a computer screen, and students can learn from their homes. However, like other learning models, the online lecture process also encounters various obstacles, especially those that occur in developing countries. This obstacle comes from students' internal and external factors, such as an unstable internet network, lack of concentration and difficulty understanding the material, and lack of familiarity with the e-learning applications used. Various studies about the obstacles experienced by students during online lectures have been carried out, and from the findings of several studies, it was concluded that the obstacles that occurred were due to the unpreparedness of educational institutions



and the academic community in carrying out online lectures. This obstacle makes the lecture process does not run optimally, so that it has an impact on students' understanding of the material which in turn reduces student satisfaction with educational services at their institution. This is very unfortunate, considering that educational institutions are obliged to provide quality services and education under any circumstances [4].

### 1.5 Service Quality and Student Satisfaction

Service Quality is commonly noted as a critical prerequisite for establishing and sustaining satisfying relationship with valued customers. In this way, the association between service quality and customer satisfaction has emerged as a topic of significant and strategic concern. In general, perceived service quality is an antecedent to satisfaction. Thus, a proper understanding of the antecedents and determinants of customer satisfaction can be seen as to have an extraordinarily high monetary value for service organization in a competitive environment [5].

This word of mouth is a personal/non-personal statement that is conveyed by someone other than the company to customers, usually easy to believe because it is delivered by people who will be trusted by consumers. Word of mouth is an indicator of loyalty, because one of the characteristics of loyal consumers is that they will share their experiences with others. From the description above, it can be concluded that educational services have an important role for educational institutions as service providers in order to be able to compete in today's global era. The expected demand from customers is the assurance of quality both academically and administratively. There are several criteria that need to be considered by educational institutions in order to have an established place in the hearts of the community, namely: being able to attract customer interest, without looking for already sought after by customers, satisfying service for customers. Improving the quality of education services is not an easy thing. Sometimes the implementation often faces problems. Dissatisfaction from customers both external and internal often arises. This customer dissatisfaction shows that the service delivery has not met customer expectations. Wolkins in Prasetyo in 2012 [6] suggests that there are six factors that determine service quality, they are: organization, leadership, organizational structure, apparatus capabilities, service and reward systems [6].

### 1.6 Service Quality and Customer Satisfaction

In the world of marketing, service is a complicated phenomenon or problem. In service companies, "people" or the people who are in it are very important to play a role and have a major influence on the performance of the service company itself. It has many meanings ranging from individual service to service as a product.

Consumers who are satisfied with the value obtained from a third party's product or service retailers are very likely to become loyal customers. One of the most important factors affect customer satisfaction and perception of service quality are how to handle complaints from customers. In general expectations from customers are estimates or beliefs of customers about what they receive when they buy or consume a product [7].

### 1.7 Previous Research

Research studies related to the level of satisfaction in online learning include the following:

- a) Research with title *English Students' Satisfaction with Online Learning at Class* described about how the students' satisfaction is a condition where students can achieve what students want and feel satisfied. This research aims to find out students satisfaction with online learning at class [8].
- b) Research with title *Academic student satisfaction and perceived performance in the e-learning environment during the COVID-19 pandemic: Evidence across ten countries* described about the outbreak of the COVID-19 pandemic has dramatically shaped higher education and seen the distinct rise of e-learning as a compulsory element of the modern educational land-scape. This research is conduct to highlights the factors which have influenced how students perceive their academic performance during this emergency changeover to e-learning. The empirical analysis is performed on a sample of 10,092 higher education students from 10 countries across 4 continents during the pandemic's first wave through an online survey. A structural equation model revealed the quality of e-learning was mainly derived from service quality, the teacher's active role in the process of online education, and the overall system quality, while the students' digital competencies and online interactions with their colleagues and teachers were considered to be slightly less important factors. The impact of e-learning quality on the students' performance was strongly mediated by their satisfaction with e- learning [9].
- c) A study entitled *Student E-Learning Satisfaction During the Covid-19 Pandemic in Bali, Indonesia* is being conducted to investigate and determine the level of satisfaction with students' use of e-learning and the success of the e-learning system [10].
- d) Research with title *Students' Satisfaction Level Towards Online Learning Compared to Traditional Classroom for English Subject* described about how Online learning starts becoming the policy from the government until the COVID-19 issue ends, this study aims to examine the students' satisfaction level in English subject at Universitas Internasional Batam towards online learning as opposed to traditional classrooms [11].
- e) Research with title *Quality of Service, Performance Lecturer to Satisfaction of Students, Graduate Quality*



and Higher Performance in Makassar has constructed to know about the performance of universities through service quality, student lecturer satisfaction performance and the quality of graduates at universities in Indonesia. This research using primary data and in process using Structural Equation Model. The results found that Quality of service and quality of graduates give a significant positive effect on the performance of universities in Indonesia [12].

- f) Research with title The Survey on Students' Satisfaction Degree towards Online Learning during Covid-19 Pandemic Condition described the satisfaction level of the university students in online learning at STKIP Muhammadiyah Barru during the Covid-19 pandemic situation. The research participants were 30 students of the Guidance and Counseling study program in the first semester on the academic year of 2021/2022. The satisfaction of the majority of students were found in the lecturers' role factor as a facilitator, and the good communication interaction factor to lecturers and to classmates. Students' dissatisfaction was generally found in the learning effectiveness factor, where students stated that they were bored with the independent assignments given by lecturers via online [13].
- g) The study entitled Student satisfaction, engagement and performance in online modules: Implications for institutional e-learning policies was created to obtain student feedback and report study findings on the relationship between student satisfaction and their engagement in online courses and overall performance [14].
- h) The research entitled Student Satisfaction with Online Learning in Mixed Courses investigates how to assess students' emotions and characteristics in participating in online learning [15].
- i) The study entitled Student Satisfaction with Online Learning During the COVID-19 Pandemic: Study in Public Universities in Sri Lanka examines the deep level of satisfaction of students with their online learning experience at Sri Lankan universities during the COVID-19 pandemic [16].
- j) The research entitled The Effect of Blended Learning on Mathematics Courses was made to explore pedagogy related to the effectiveness of blended learning on the learning achievement of junior high school students and students' attitudes towards mathematics [17].

### 1.8. Element of Research Novelty

There were many previous studies that explored information only from the student's side and there was no feedback from lecturers and other teaching staff, while in this study, we will try to express opinions from both sides of both the student and teacher side, also find the information from campus academic team.

This research has an element of novelty in the respondents. The respondents are the combination among

lecturers and students, also the campus academic team who represent the academic community of University of Proklamasi 45, Yogyakarta. In previous studies, the respondents were only lecturers or students respondents.

## 2 METHOD

This research will be carried out in several stages as follows: Conducting a Literature Review by looking for references in the form of online learning methods along with the positive and negative impacts of their application in teaching and learning activity; Distributing questionnaires to UP45 academic community including Lecturer and Student, also for Campus Academic Team who was handle the Learning Management System; Performing questionnaire data analysis using SPSS data processing software; carrying out analysis of results and discussion based on the results of questionnaire data analysis; and the last one is making a final research report along with suggestions and constructive input.

### 2.1 Research Flowchart

The following Figure 1 is a flowchart of this research, the sequence of steps to determine the research carried out in a coherent and directed manner in order to achieve the desired results optimally:

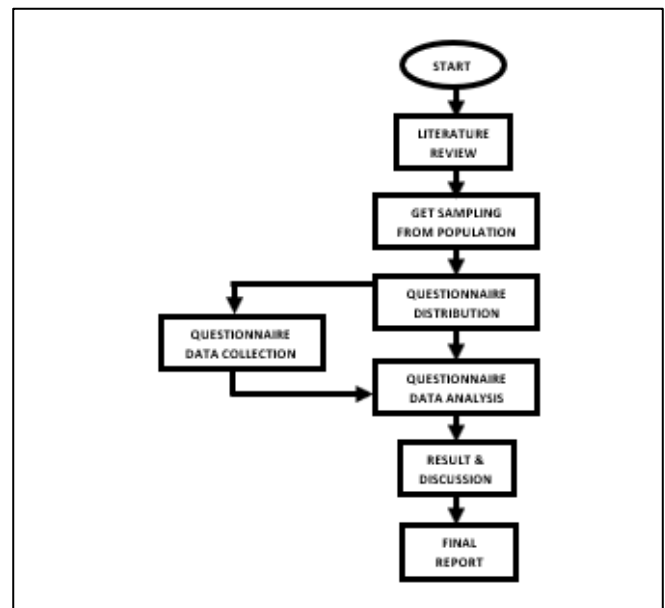


Figure 1. Research flowchart

### 2.2 Tools and Materials

This research will use the following equipment and software:

1. A laptop with the Lenovo T430 series brand with the following specifications:
  - a. Processor: Intel(R) Core (TM) i5-3320M CPU @ 2.60GHz (4 CPUs)
  - b. Memory: 12288MB RAM



- c. Operating System: Windows 10 Enterprise 64-bit
2. SPSS software as a quantitative data processing tool
3. Making Questionnaires using Google Docs as a facility to collect data which then the results are recapitulated using Microsoft Excel
4. Microsoft Excel as the basis for tabulating data using SPSS software
5. A Xiaomi Redmi 8A cellphone as a tool in distributing questionnaires to respondents from Lecturers and Students.

### 2.3 Scope of Activities

The scope of activities of the Lecturer and Student Satisfaction Survey in this online lecture consists of:

1. Respondents; Respondents are lecturers, students and campus academic team from University of Proklamasi 45.
2. The satisfaction of using Digital Platform from UP45 academic community in online lectures, based on the familiarize of using information technology devices. The campus academic team also has a vital role as an administrator from E-Learning UP45 platform.

### 2.4 Survey Implementation Stages

In general, the implementation of the academic community satisfaction survey in online lectures based on E-Learning platform that was handled by academic team is carried out through three stages including:

1. Stage of development of survey concepts and instruments. (Survey for students, lecturers and academic team from UP45 Yogyakarta)
2. Data collection (Data from questionnaire and part of component from E-Learning UP45 platform)
3. Data analysis and report writing (Based on analysis satisfaction level description from students and lecturers, following also discussion report from the e-learning management system of University of Proklamasi 45.

### 2.5 Research Data Analysis

Research respondent data from lecturers, students and academic team, will be processed using SPSS software. The analytical calculation method is in the form of descriptive statistics which includes the calculation of frequency and percentage (valid and cumulative percentage).

## 3 RESULT AND DISCUSSION

Based on the results of the research that has been carried out, there are several analyzes that can be used as guidelines in improving the implementation of online learning services with E-Learning management system of UP45 Yogyakarta.

### 3.1 Respondent

The respondents are from students, lecturers and the UP45 academic team. There are 120 students representing

all study programs on the UP45 campus, 14 lecturers representing all study programs and also 4 persons from the academic team representing the UP45 E-Learning (LMS) administration.

### 3.2 Population at UP45

Total population from UP45 students are 1517 students from all study programs. Formula 1 below is Taro Yamane Formula. It is the calculation formula used to find the right sample from a number of populations:

$$n = \frac{N}{N \cdot d^2 + 1} \quad \dots (1)$$

N = population  
n = sample  
d = degree of error

In this case, we get the sample as follows

N = 1517  
d = 10%

$$n = \frac{1517}{1517 \cdot 0,01 + 1}$$

$$n = \frac{1517}{16,17}$$

$$n = 93,81 \sim 94$$

basic on the Taro Yamane formula, with degree of error 10%, we need minimum 94 sample students to run our research and share the questionnaire. After the researcher distributed the questionnaires, the actual sample was 120 students.

### 3.3 Student Satisfaction Analysis

The following are the results of the questionnaire tabulated using the SPSS software, presented in the form of a percentage table along with a brief explanation. Table 1 below contains the most effective learning methods, with 3 options of learning and teaching activity method:

Table 1. Effective Learning and Teaching Activity Method

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Online	71	59.2	59.2	59.2
Offline	31	25.8	25.8	85.0
Blended Learning	18	15.0	15.0	100.0
Total	120	100.0	100.0	

As many as 59.2% of respondents are satisfied with online learning, 25.8% respondents want offline learning to be held again, and 15% want the blended learning method.

Table 2 contains frequencies from using LMS by lecturers in UP45 Yogyakarta. A total of 58.3% of respondents stated that the Lecturers always use LMS for Online learning and teaching activity, while about 13.3% respondents stated they're not use the LMS (Usually these



respondents are students who rarely enter/join and are active in lectures), and 28.3% answer sometimes lecturers use LMS.

Table 2. Use of LMS from Lecturers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	70	58.3	58.3	58.3
No	16	13.3	13.3	71.7
Sometimes	34	28.3	28.3	100.0
Total	120	100.0	100.0	

Table 3 explain about the other media that's used by lecturers than PowerPoint as follows:

Table 3. Use of Media the other Power Point

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Available	79	65.8	65.8	65.8
Not Available	11	9.2	9.2	75.0
Sometimes	30	25.0	25.0	100.0
Total	120	100.0	100.0	

There is a use of the other media than PowerPoint in campus for about 65.8% respondents stated that they're availability platform and about 9.2% respondents stated they aren't available, while the other 25% respondents stated sometimes Lecturers use the other media than PowerPoint in the learning and teaching activities.

Table 4 contains the most effective online platform tools which are usually used by lecturers:

Table 4. The Most Effective for Online Platform

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Google (Meet, Classroom)	13	10.8	10.8	10.8
Zoom	21	17.5	17.5	28.3
E-Learning (LMS) UP45	75	62.5	62.5	90.8
WhatsApp Group	7	5.8	5.8	96.7
YouTube Channel	4	3.3	3.3	100.0
Total	120	100.0	100.0	

The most effective for online platform learning and teaching activity has been voted by the respondents; as many as 62.5% consider that E-Learning (LMS) UP45 are good enough in the most effective for online learning platform, while the others respondents choose to another platforms (10.8% - Google Meet & Classroom; 17.5% - Zoom; 5.8% WhatsApp Group; 3.3% YouTube Channel).

Table 5 contains satisfaction level for online learning implementation from the students:

Table 5. Satisfaction Level for Online Learning

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not Satisfied	33	27.5	27.5	27.5
Satisfied	87	72.5	72.5	100.0
Total	120	100.0	100.0	

As many as 72.5% of respondents expressed satisfaction with the implementation of online learning, where the remaining 27.5% of respondents expressed dissatisfaction with online learning.

Table 6 contains satisfaction level for lecturer performance from the students. As many as 88.3% of respondents expressed satisfaction with the Lecturer performance, where the remaining 11.7% of respondents expressed dissatisfaction with lecturer performance.

Table 6. Satisfaction Level for Lecturer Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Satisfied	106	88.3	88.3	88.3
Not Satisfied	14	11.7	11.7	100.0
Total	75	100.0	100.0	

Table 7 contains satisfaction level for online learning platform (tools) usually used by the lecturers:

Table 7. Satisfaction Level for Online Learning Platform

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not Satisfied	31	25.8	25.8	25.8
Satisfied	89	74.2	74.2	100.0
Total	120	100.0	100.0	

As many as 74.2% of respondents expressed satisfaction with the online learning platform, where the remaining 25.8% of respondents expressed dissatisfaction with online learning platform.

Table 8 contains mastery of online learning technology by lecturers:

Table 8. Mastery of Online Learning Technology by Lecturers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not Satisfied	12	10.0	10.0	10.0
Satisfied	108	90.0	90.0	100.0
Total	120	100.0	100.0	

About 90% respondents are satisfied with lecturers' mastery of online learning technology, while the remaining 10% respondents were dissatisfied with the lecturers' mastery of online learning technology.

The results can be used as the basis for the continuous implementation of the LMS UP45, by improving lecturer performance and updating the platform on a regular basis. The level of satisfaction can be achieved to the optimal stage.

### 3.4 Lecturer Satisfaction Analysis

The following is an analysis of the data results in the form of Lecturer observations on the implementation of online learning activities; The data is presented in tabular form along with a brief explanation of the contents of the table.

Table 9 contains ease to access of presentation of material study. It is 40% of lecturers answered strongly agree that the implementation of online teaching and learning activity makes it easier for them to deliver lecture material, while 30% answered agree and the rest, 30% answered neutral.



Table 9. Ease of Presentation of Material

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neutral	3	30.0	30.0	30.0
Agree	3	30.0	30.0	60.0
Strongly agree	4	40.0	40.0	100.0
Total	10	100.0	100.0	

Table 10 describes about the most effective online platform usually used by lecturers at UP45 Yogyakarta:

Table 10. The Most Effective Online Platform

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid LMS UP45	8	80.0	80.0	80.0
Google Meet/Class room	1	10.0	10.0	90.0
Zoom Video	1	10.0	10.0	100.0
Total	10	100.0	100.0	

As many as 80% of Lecturer respondents chose the online learning platform LMS as their favorite conference media when teaching, while 20% chooses Google Meet/Classroom and Zoom Video Conference as the most effective online learning media.

Table 11 contains hopes from lecturers about learning and teaching methods after pandemic:

Table 11. Lecturer's Hope After the Pandemic

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Blended learning (Online & Offline)	4	40.0	40.0	40.0
Full Online Learning with LMS UP45	6	60.0	60.0	100.0
Total	10	100.0	100.0	

The implementation of blended learning methods (a combination of online and offline) is expected to be carried out again as usual by 40% of respondents; while 60% of respondents want to be in Full Online Learning with LMS UP45 in the implementation of teaching and learning activity in the future.

The results from the analysis of the lecturer respondents above can be used as a basis for improving the quality of the LMS UP45 which synergizes with the capacity of lecturers, it can also be used as a direction for campus internal policies to improve the quality of online education services to students.

### 3.5 Academic Team UP45 Testimonies

As the main actor to ensure the stability and reliability of the UP45 E-Learning Tool, the following is an official statement from the UP45 Academic Team relating to the operation of the LMS UP45. Table 12 shows the role from academic team UP45 in managing the LMS UP45:

Table 12. The role of the academic team in the preparation of the LMS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Super Administrator LMS	1	25.0	25.0	25.0
LMS Coordinator with Lecturers	3	75.0	75.0	100.0
Super Total	4	100.0	100.0	

There is 1 person (25%) as the Super Administrator LMS UP45, while the other 3 people (75%) are the technical coordinator for using the LMS for lecturers.

Table 13 contains the general opinion from academic team as an administrator of LMS UP45:

Table 13. What is your opinion regarding the use of this UP45 LMS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very interesting and facilitates the performance of Lecturers and Educators in managing Lecture Teaching Materials	1	25.0	25.0	25.0
Interesting but still needs some improvement in this UP45 LMS content	3	75.0	75.0	100.0
Mediocre and not special	0	0.0	0.0	100.0
Total	4	100.0	100.0	

It is 75% of respondents from the academic team thought that the LMS was interesting but it still needed some improvement in the content of the UP45 LMS, while the rest thought that this LMS was very interesting (1 person) and ordinary (1 person).

Table 14 contains about review from academic team UP45 for using LMS UP45:

Table 14. This LMS UP45 still has many shortcomings?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	0	0.0	0.0	0.0
Maybe	3	75.0	75.0	75.0
Yes	1	25.0	25.0	100.0
Total	4	100.0	100.0	

From the total respondents, as many as 75% of respondents stated that the UP45 LMS still needs periodic repairs.

Table 15 contains hopes from academic team UP45 for using LMS UP45 in the future. It is 75% of respondents have the view that the LMS UP45 can be used as the main tool for online learning in the future, while 25% of





respondents view that the LMS UP45 can be a support system for blended learning methods.

Table 15. The hopes for using the UP45 LMS in the Future

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Just abolish the UP45 LMS and return to the face-to-face method in learning	0	0.0	0.0	0.0
	Can be the main learning tool in the future	3	75.0	75.0	75.0
	Blended learning method support	1	25.0	25.0	100.0
	Total	4	100.0	100.0	

### 3.6 E-Learning UP45 Management System Explanation

University of Proklamasi 45 has a special platform to use for academic community during this Pandemic Covid 19 era. It is called E-Learning UP45, the basic view can be seen in Fig. 2 below:

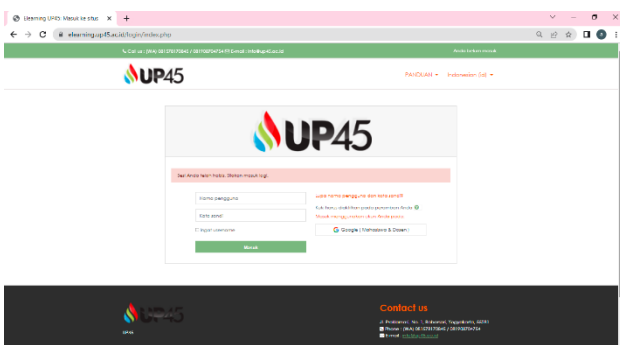


Figure 2. E-learning UP45 management system

E-Learning UP45 has many components from the basic standard of use, the components are including: accounts for students and lecturers; basic courses that consist of all faculty members for lecturers to fill the contents for learning and teaching activity, calendar, private file, my course and site administration. The display can be seen in Fig. 3 below:

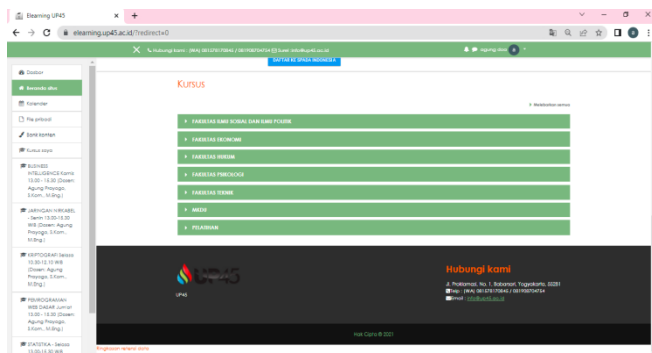


Figure 3. Component of E-Learning UP45 Platform

As part of E-Learning UP45 Management System, there is a menu for filling out learning materials for lecturers in carrying out teaching tasks, as shown in Fig. 4. It displays that shows the parts of the teaching materials.

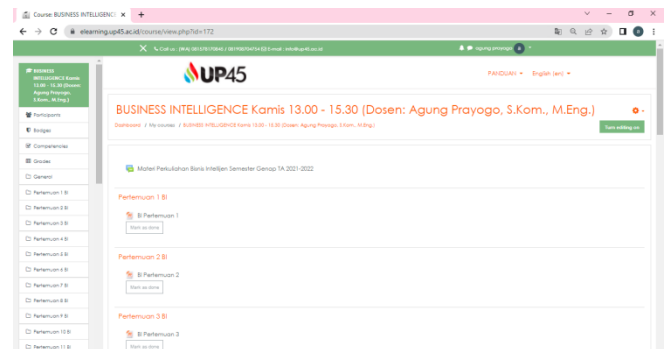


Figure 4. Display of parts of the teaching materials for lecturers

E-Learning UP45 platform has also a menu to students to enroll their self in the course. Students can independently enter their data into the e-learning system and can immediately take part in learning both theory and practice as well as mid-term and end-semester exams through the e-learning. The display can be seen in Figure 5 below:

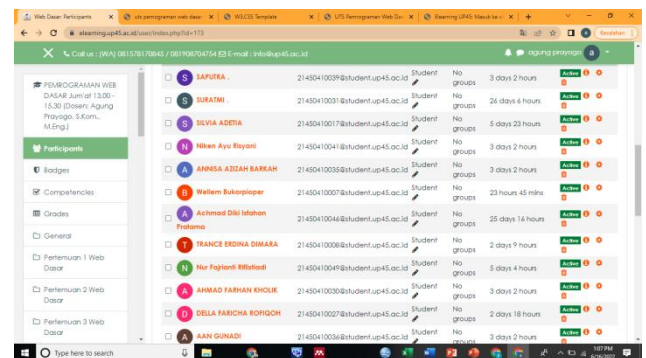


Figure 5. The part of students account from E-Learning UP45

## 4 CONCLUSION

Based on the results, lecturers still complain about the inactivity of students in general, students are considered passive and tend to be silent when given time to express opinions and ask questions at the same time (when lectures using video conferencing). implementation of online lectures; General supervision of the attendance of students attending online lectures is reduced, because lecturers need to educate students on their own initiative; The need for curriculum adjustments that adapt to the situation and conditions of online lectures; Network infrastructure constraints on the UP45 campus can be overcome by repairing network cables and adding access points; Submission of lecture material that has not been maximized, especially in practicum courses (properly can be overcome by using E-Learning UP45).

The suggestions that the writer can put forward are as follows: Lecturers are further to improve their competence in teaching, while students are required to be more active in developing themselves in lectures; Teaching methods during



the pandemic using online media devices have become more varied (in this case an effective solution in learning has been found, namely by using the E-Learning UP45 management system; Lecturers are able to create a fun online teaching and learning atmosphere; There is a need of collaboration between educators and the Government, especially the Ministry of Education and Culture of the Republic of Indonesia to immediately formulate effective policies to balance face-to-face learning and online learning (blended learning); The addition of internet quota from the government (Ministry of Education and Culture of the Republic of Indonesia).

#### AUTHOR'S CONTRIBUTION

As the first author, Agung Prayogo contributed technically and wrote to this research. He did the research with the supervision from the second author namely Selvi Dwi Hartiyani for ideas and technical aspects. Last, the research got theoretically supervision from the third and fourth author with Erlinawaty and Puti Adam Dewi.

#### COMPETING INTERESTS

Comply with the publication ethics of this journal, Agung Prayogo, Selvi Dwi Hartiyani, Erlinawaty and Puti Adam Dewi as the authors of this article declare that this article is free from conflict of interest (COI) or competing interest (CI).

#### REFERENCES

- [1] O. I. Handarini and S. S. Wulandari, "Pembelajaran Daring Sebagai Upaya Study From Home (SFH).," *J. Pendidik. Adm. Perkantoran*, vol. 8, no. 3, pp. 465–503, 2020.
- [2] R. H. Sakti, S. Sukardi, M. Giatman, E. Nazar, W. Wakhinuddin, and W. Waskito, "Flipped Classroom-Computer Based Instruction untuk Pembelajaran Revolusi Industri 4.0: Rancang Bangun dan Analisis Kebutuhan," *Edumatic J. Pendidik. Inform.*, vol. 4, no. 1, pp. 63–72, 2020.
- [3] A. Wibaselppa, S. Rumangkit, and M. Saputra, "Tingkat Kepuasan Mahasiswa Atas Kinerja Dosen Pada Pembelajaran Online Masa Pandemi Covid - 19 Di Iib Darmajaya," *J. Manag. Accounting, Econ. Bus.* <http://trianglesains.makarioz.org> P, vol. 02, no. 03, pp. 427–441, 2021.
- [4] A. A. Hakim, A. M. Sholikhah, D. Agustia, R. C. Dewi, and N. Rimawati, "Gambaran Kualitas Pembelajaran Daring , Pelayanan Akademik , dan Tingkat Kepuasan Mahasiswa di Masa Pandemi COVID-19," *Ilmu Pendidikan, Keguruan, dan Pembelajaran*, vol. 5, pp. 135–143, 2021.
- [5] A. I. Ilias, H. F. A. Hasan, and R. A. Rahman, "Student Satisfaction and Service Quality: Any Differences in Demographic Factors?," *Int. Bus. Res.*, vol. 1, no. 4, pp. 131–143, 2009.
- [6] A. Supriyanto, Aswandi, and H. M. Chiar, "Manajemen Mutu Layanan Pendidikan Di Sekolah Menengah Atas Karya Sekadau," *J. Pendidik. dan Pembelajaran Khatulistiwa*, vol. 6, no. 2, pp. 1–15, 2017.
- [7] A. Setiawan, N. Qomariah, and H. Hermawan, "Pengaruh Kualitas Pelayanan Terhadap Kepuasan Konsumen Popolo Coffee," *Sains Manaj. Dan Bisnis Indones.*, vol. 9, no. 2, pp. 114–126, 2019.
- [8] S. Sanora, "English Students' Satisfaction With Online Learning At English Education Program of Muhammadiyah," vol. 01, no. 03, pp. 184–199, 2021.
- [9] D. Keržič et al., "Academic student satisfaction and perceived performance in the e-learning environment during the COVID-19 pandemic: Evidence across ten countries," *PLoS One*, vol. 16, no. 10 October 2021, pp. 1–23, 2021.
- [10] N. K. Suryani and I. A. P. W. Sugianingrat, "Student E-Learning Satisfaction During The Covid-19 Pandemic in Bali, Indonesia," *J. Econ.*, vol. 17, no. 1, pp. 141–151, 2021.
- [11] G. Ponto and N. Nurlaily, "Students' Satisfaction Level Towards Online Learning Compared To Traditional Classroom For English Subject," *Jet Adi Buana*, vol. 5, no. 02, pp. 131–138, 2020.
- [12] A. Ratna, S. Dewi, and M. Sangkala, "Quality of Service , Performance Lecturer To Satisfaction of Students , Graduate Quality and," *Int. J. Manag. Appl. Sci.*, vol. 4, no. 6, pp. 59–62, 2018.
- [13] F. A. Alam, "The Survey on Students ' Satisfaction Degree towards Online Learning during Covid-19 Pandemic Condition," vol. 3, no. 1, pp. 44–56, 2022.
- [14] Y. B. Rajabalee and M. I. Santally, "Learner satisfaction, engagement and performances in an online module: Implications for institutional e-learning policy," vol. 26, no. 3. *Education and Information Technologies*, 2021.
- [15] S. Ghaderizefreh and M. L. Hoover, "Student Satisfaction with Online Learning in a Blended Course," *Int. J. Digit. Soc.*, vol. 9, no. 3, pp. 1393–1398, 2018.
- [16] S. Hettiarachchi, B. W. R. Damayanthi, S. Heenkenda, D. M. S. L. B. Dissanayake, M. Ranagalage, and L. Ananda, "Student satisfaction with online learning during the COVID-19 pandemic: A study at state universities in Sri Lanka," *Sustain.*, vol. 13, no. 21, 2021.
- [17] Y. W. Lin, C. L. Tseng, and P. J. Chiang, "The effect of blended learning in mathematics course," *Eurasia J. Math. Sci. Technol. Educ.*, vol. 13, no. 3, pp. 741–770, 2017.

