Trends and impacts of online learning in the face of COVID-19 pandemic at Gorontalo State University

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Trends and Impacts of Online Learning in The Face of COVID-19 Pandemic at Gorontalo State University

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Abstract. The impact of internet growth and increase of mobile phone user triggering online learning application development. Online learning such as learning management system, website, blog, wiki, presentation sharing and also lot of social media such as online video, microblogging, social network website used in order to provide information and knowledge used by student at Gorontalo State University. During the covid-19 pandemic all lectures had to be carried out online. This study aims to determine the trends and impacts of online learning during the covid-19 pandemic. The method used in this research is survey research. The result of this research are video conference is the most tool used by students and lecturers, the form of online learning most often used by students and lecturers is asynchronous with a percentage of 22,26%, 56.09% lecturers create their own teaching objects, the most teaching objects is visual (such as infographics, image and slide presentation), 75,21% of students find online learning is fun, learning outcomes and students level of understanding of the lecture material show a satisfactory number.

Keywords. Online Learning, Covid-19, Trend and Impact of Online Learning

INTRODUCTION

The impact of internet growth and increase of mobile phone user triggering online learning application development. Online learning such as learning management system, website, blog, wiki, presentation sharing and also lot of social media such as online video, microblogging, social network website used in order to provide information and knowledge used by student of Gorontalo State University. Research conducted by [2] shows that there is an influence of internet usage on student learning interest. [3] also states that the internet is used by students to access learning resources, collaborative learning, knowledge sharing and peer-to-peer learning and learning professional skills and expertise. The development of social media also influences the interaction between students and instructors [4], not only that social media also has a positive effect on student learning that is tied to learning content, activities that are sharing information and creating communities for those who share the same interests and passions [5] Social media also has significant positive value for collaborative learning [6]. But online learning is not only through social media but there are many facilities on the internet that can be used for learning such as wikis, file / presentation sharing, online videos, e-learning, blogs, website tutorials and so on. In one case e-learning with the learning management system was the most useful media for both lecturers and students in addition to reference management software, lecture recordings, institutional cloud storage and instant messaging in the learning process [7].

The change in learning methods was very significant after COVID-19 pandemic spread not only in Indonesia but also throughout the world. The Indonesia government did not remain silent, The ministry of education and culture issued a policy with circular letter number 15 of 2020 concerning guidelines for organizing learning from home in an emergency for the spread of COVID-19.

UNG has implemented online learning since 2006 where its implementation was still in one Faculty, namely the Faculty of Education. It was continued in 2007 in which PJJ PGSD began using moodle-based e-learning. In 2009, the Faculty of Engineering, especially the Informatics Engineering Department, applied online learning using moodle and it was followed by the Faculty of Economics and Business. In the academic year 2012/2013, online learning has been integrated with the integrated academic information system(SIAT) due to the increased interest in the use of e-learning. However, many lecturers who have attended e-learning and moodle related training cannot integrate those components with SIAT. [1]

This research describes the implementation of online learning at Gorontalo State University, how the trends and characteristics of the implementation of online learning, the acceptance of learning materials by students and the suitability of teaching materials with learning outcomes.

LITERATURE REVIEW

Online Learning

There are several definitions of online learning, including [8] explain that online learning is education that takes place over internet. It is often referred to as "e-learning" among other terms. However, online learning is just one type of "distance learning", [9] Describe some conditions online learning that are:

a. Focus has shifted from teaching to learning
This is a fundamental change in perspective and has a dramatic impact on the relationship between teachers and learners. The learner's activities are now the focus of the course. Online pedagogy mainly focuses on the activities of the learner and sees teaching primarily as a means of support

b. Online learning is Student centered
The learning process model has changed from a 'blackbox' model in which inputs consist of presented knowledge and the metrics of the output focus on what is known to a model that deals with the construction of cognition and competencies.

c. Online learning is Dependent Upon the Development of Learning Environments-Online
learning, with its focus on the learner, is moving from the traditional instruction centered focus towards the support of learning. The role of the instructor is moving towards being the constructor of the learning environment and as an advisor to the learner.

d. Online learning is Active
The learner is challenged to own, manage and schedule their learning. This can be a difficult task for some learners who, for the first time, may be experiencing the ability to control what was typically controlled by the instructor.

e. Online learning should be interactive and collaborative
Media enabled learners are empowered to interact with the content of the course, with the instructor of the course and with the other learners in the course.

Divide online learning into several types as shown in the following Table 1 [7] :

TABLE 1. Type of online learning

No	Online Learning
1	Learning Management System
2	Forum
3	Wiki
4	Institutional Cloud Storage
5	Presentation sharing
6	Virtual Seminar/Webinar
7	e-Assessment

e-Learning

e-Learning refers to the use of ICTs to enhance and/or support learning in higher education. [10] e-Learning is also defined as the education delivered through internet technologies without the necessity of teacher and student being present at the same time. [11] By definition, e-Learning is the use of electronic media, educational technology and information and communication technologies (ICT) in education. E-Learning includes numerous types of media that deliver text, audio, images, animation and streaming video. It includes technology applications and processes such as audio or video tape, satellite TV, CDROM, and computer based learning, as well as local intranet/extranet and web based learning. Information and communication systems, whether free standing or based on either local networks or the internet in networked learning. [12]

Survey Method

Survey research studies large and small population (or universes) by selecting and studying samples chosen from the population to discover the relative incident, distribution, and interrelations of sociological and psychological variables. [13] Survey is quantitative based. The survey asks many people (call respondent) about their belief, opinions, characteristic, and past or present behaviour. Survey is appropriate for research questions about self-reported belief or behaviour. [14]

Research Method

The research method used is a quantitative survey type where the data sample is taken randomly so that the conclusions of the research results can be generalized to the population where the sample is taken. Data were collected from questionnaires distributed to 486 students from several study programs/departments /faculties at Gorontalo State University by using google form. Data is also obtained from the learning management system (http://kuliahdaring.ung.ac.id) regarding users, courses, and the intensity of their use.
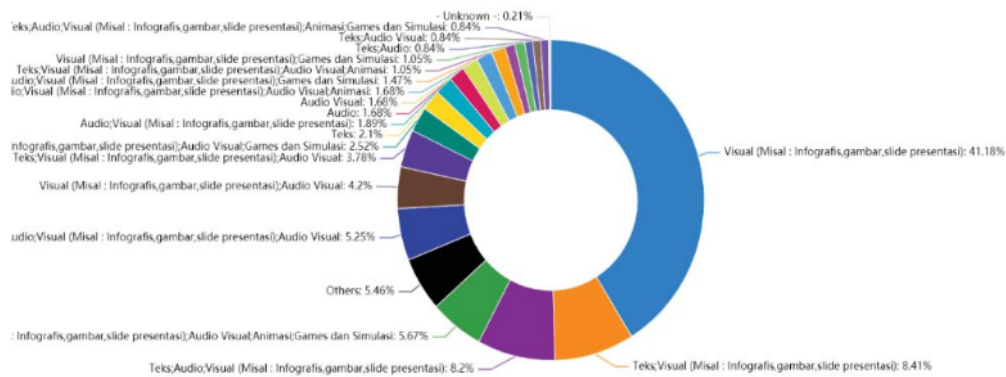
RESULTS

FIGURE 1. Most course materials accessed by students

Trends that can be seen in online learning at Gorontalo State University from the data that has been collected from Google Form, the most course materials accessed by students is visuals in the form of infographics, pictures, presentation slides, which is 41.18% as seen in figure 1
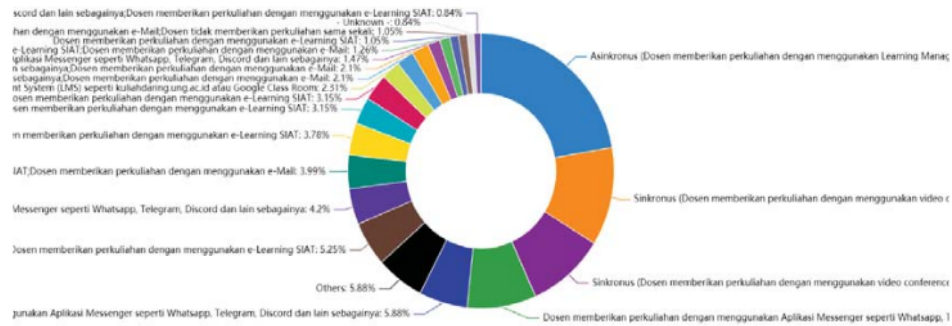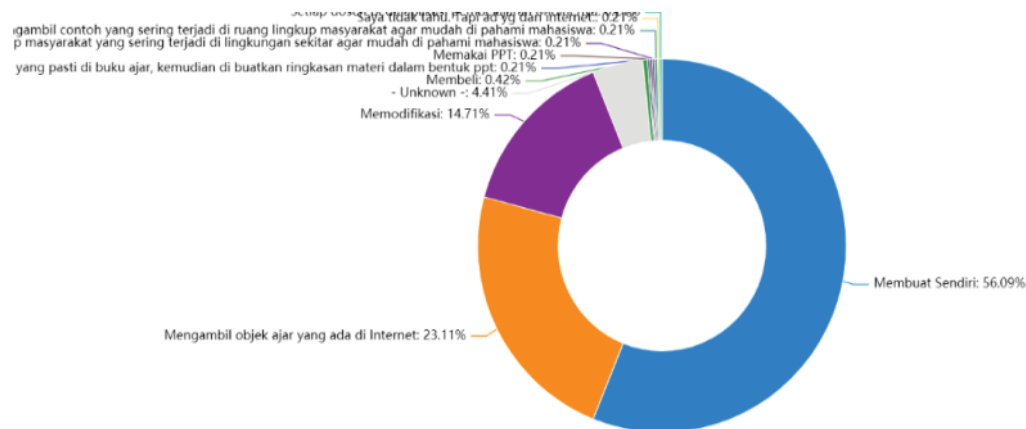

FIGURE 2. The way lecturer delivers lectures

Setiap dosen mengdakan materi dari internet: 0.21%
gambil contoh yang sering terjadi di ruang lingkup masyarakat agar mudah di pahami mahasiswa: 0.21%
p masyarakat yang sering terjadi di lingkungan sekitar agar mudah di pahami mahasiswa: 0.21%
Memakai PPT: 0.21%
yang pasti di buku ajar, kemudian di buatkan ringkasan materi dalam bentuk ppt: 0.21%
Membeli: 0.42%
- Unknown -: 4.41%
Memodifikasi: 14.71%
Mengambil objek ajar yang ada di Internet: 23.11%
Membuat Sendiri: 56.09%

FIGURE 3. Lecture material

The way lecturer deliver lectures was asynchronous by using the Learning Management System, which was 22.26% as seen in figure 2, 56.09% of lecturers make their own lecture material, 23.11% of lecturers take teaching objects that are on the internet and 14.71% of lecturers modify existing learning objects as seen in Figure 3.

- Unknown -: 1.05%
Tidak: 23.74%
Ya: 75.21%
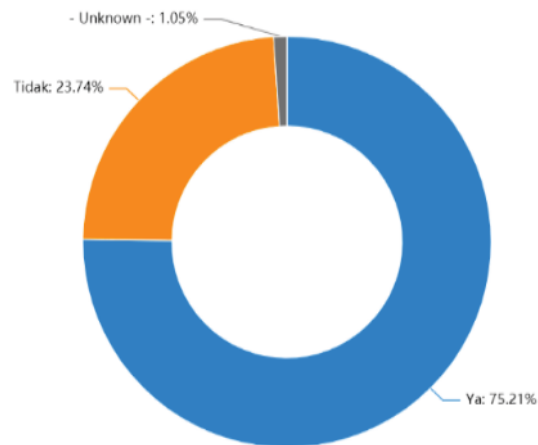
FIGURE 4. Online Learning is Fun

As many as 75.21% of students thought that online learning was fun, 23.74% thought that online learning was not fun, and 1.05% answered they didn't know as seen in Figure 4.

After conducting data analysis activities to determine the level of conformity between the teaching methods of the lecturers and the learning outcomes and the level of student understanding of the lecture material showed a fairly good number where the level of suitability between teaching methods and learning outcomes showed an average of 3,468 as seen in table 2.

TABLE 2. Descriptive Statistics

	The level of conformity between Learning Outcomes by teaching lecturers during online learning	The level of understanding of the course material during online learning
Valid	485	485
Missing	1	1
Mean	3.468	3.148
Median	3.000	3.000
Std. Deviation	0.899	0.857
Minimum	1.000	1.000
Maximum	5.000	5.000

From the data obtained from the Learning Management System (http://kuliahdaring.ung.ac.id) during November 2020 it is known that the number of users who logged in per day reached 108 users as seen in the figure 5. There are 732 courses in the Learning Management System (http://kuliahdaring.ung.ac.id) spread across all faculties, but there are a number of different activities in the courses with the following description:

TABLE 3. Number of Courses per Size

Courses	Course Size (Activities)
540	0-4
60	5-9
28	10-14
16	15-19
8	20-24
13	25-29
12	30-34
2	35-39
11	40-44
6	45-49
3	50-54
5	55-59
2	60-64
5	65-69
5	70-74
2	75-79
3	80-84
2	85-89
1	90-94
8	>94

USER LOGGIN IN
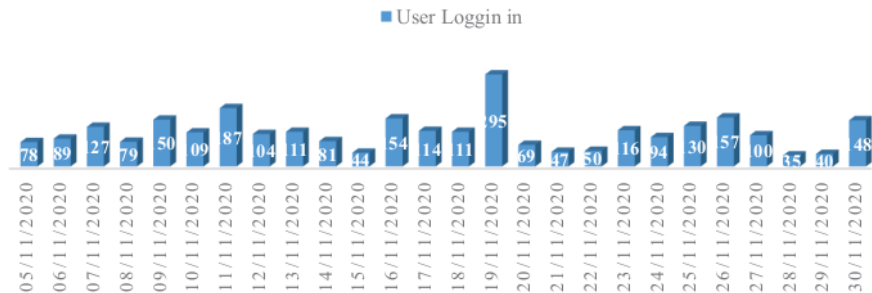
◼ User Loggin in

FIGURE 5. User loggin in data

Most of the activities in the Learning Management System (http://kuliahdaring.ung.ac.id) are quiz activities which are widely used for practice and exams in various study programs.

ACKNOWLEDGMENTS

CONCLUSION

From the data previously presented, it can be concluded that online learning during the COVID-19 pandemic can be said to have increased quite significantly compared to before the pandemic. Most students feel that online learning is fun learning with the level of conformity between the teaching methods of the lecturers and the learning outcomes and the level of student understanding of lecture material can be said to be quite good.

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FINAL GRADE

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GENERAL COMMENTS

Instructor

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