



Analysis Use of Application and Social Media Appropriate in Online Learning in Universities Indonesia

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Abstract. The spread of the COVID-19 pandemic has pushed the education system at all levels with online learning. The teaching and learning process is one way to mature students to form their identity to understand science correctly. To promote the continuation of education in Indonesia, utilizing apps and social media in lectures is critical. This study examines the appropriateness of using social media and applications from the perspective of lecturers and students during online lectures at three universities, West Kalimantan province. A total of 315 people were surveyed, including 15 lecturers and 300 undergraduate students from three universities. This study examines online lecture readiness, the perspectives of lecturers and students using applications and social media, and strengths, weaknesses, opportunities and obstacles during online lectures. Utilization of WhatsApp when online addresses are over 50%. More than 80% of participants' addresses get addresses utilizing online media and applications and making distance learning less demanding. Around 77% of lecturers moreover educate using media and applications to create work simpler. Materials, equipment, and structures designed to ensure the coherence of online courses have proven very valuable. Nearly 68% of student believe that using websites and social media lecture tools in all subjects is impossible. Approximately 59% of speakers moreover suppose that not all addresses can use online applications and media, particularly in field and laboratory research.

Keywords: Perspective · Online Learning · Social Media · Pandemic · Covid-19

1 Introduction

The emergence of a pandemic COVID-19 outbreak was unanticipated as well as a massive impact on life. The COVID-19 explosion spreading much faster than ever worldwide [1]. At the end of 2020, the covid-19 virus emerged in China, precisely in Wuhan City has diffused to all continents except the south pole [2]. The lockdown for schools

and colleges is also a negative impact of the SARS-CoV-2 virus as "COVID-19" in terms of learning. The Covid-19 widespread hurt instruction frameworks global, including the closure of higher education and schools in most nations of the world [3]. An effort to reduce the widespread is to briefly close schools at all levels [4]. Amid the COVID-19 pandemic, the lectures process cannot be carried out in the classroom, so distance online learning needs to be carried out as an appropriate action to take so that the learning process continues and can also prevent students from spreading the COVID-19 outbreak.

The pestilence has effectively compelled the worldwide shutdown of a few exercises, counting instructive exercises, and this has brought about in tremendous crisis-response movement of colleges with online learning serving as the platform of knowledge [5]. The COVID-19 widespread has besides had an extreme effect on higher instruction as colleges closed their premises and nations closed their borders in reaction to the area lockdown [6]. Education organization are required to implement amendments to the execution of lectures which are usually face-to-face however currently must be based online [7]. Lecturers are aware of the importance of online distance learning (ODL) because it is more effective to use mainly during difficult times due to the spread of the epidemic [8]. Online learning has been proven to help maintain the wellness of students and lecturers throughout the COVID -19 widespread [9].

Education acts an essential role in developing the country [4, 10]. Online learning or e-learning is an electronic media used for conventional learning purposes to online classes from face-to-face meetings to online meetings [11]. Online learning or lectures are the implementations of the latest learning using various applications and media as learning facilities and infrastructure [7]. The teaching and learning process can be done directly or online, the learning process is a way to mature humans, especially students in forming their identity so that they can easily understand the knowledge received and everything good and right. Implementation of learning occurs when there is the interaction between at least two parties. Informative and prolific online teaching and learning is momentous to increase learning potential [7]. Communication in teaching and learning plays an important role [12]. The current covid-19 pandemic has turned into the basis of virtual lecturer with an online learning process that has never been done before and has made it a feasible and necessary choice for many people [13].

Currently, online learning is certainly also supported by social media applications. The utilization of applications and social media in learning has risen at the higher education level [14]. Social media technology, the web page includes various applications that can be accessed from gadgets and used at any time [15]. Various educational institutions have also adopted policies to enforce online learning, using applications and social media as a means of assisting the implementation of distance learning processes. Use of the social media plays a primary part amid covid-19 widespread times as well as social organizing applications may serve as a valuable communication and instructing apparatus for numerous countries [16, 17]. Social media helps provide a collaborative learning environment where students can share information but also connect with others globally [18]. Social media tools are rapidly changing the communication landscape, their emergence having a significant impact on the way students learn as well as the way instructors

teach [19]. Social media incorporates collaborative ventures (e.g. user-generated substance, substance communities, substance sharing and online social organizing locales) [20].

In Indonesia, 2021 there will be 170 million Indonesians who are active users of social media [21] within WhatsApp ranked second with 89% [22] of users are also used in the implementation of higher education during the COVID-19 pandemic. At the same time, applications commonly used by students are practical applications in exchanging messages such as WhatsApp. WhatsApp could be a free courier application that works over different stages and is being broadly utilized among undergrad undergrads to send multimedia messages like photographs, recordings, audios at the side straightforward content messages [23]. Furthermore, social media such as WhatsApp to encourage omnipresent learning has been drilled around the world [16]. Various social media and WhatsApp can be used as tools for students, students, teachers and lecturers to overcome learning problems and as learning facilities that have been implemented throughout the world [24–27] WhatsApp enhances social interactivity between students and instructors and facilitates collaborative lectures [28].

The use of WhatsApp in online learning can be a solution to learning difficulties that are being experienced during the COVID-19 pandemic. It also means supported by the results of the study carried out by [23] which states that WhatsApp is a social media application that becomes a facilitator in online learning and students agree that it is 86.72%. WhatsApp portable learning exercises can be a compelling device for undergrads [31]. The use of WhatsApp in online learning can be a solution to learning difficulties that are being experienced during the COVID-19 pandemic. Meanwhile, the employ of WhatsApp also increases interest in learning by 55% as well as 93% of WhatsApp groups support intimacy in teaching and learning [12].

Higher education is changing faster by the growth of online learning, with many more universities worldwide providing degree courses in an online distance study mode [29]. E-learning could be a worldwide phenomenon over the final decades in higher instruction [30]. Today, educational mobile technology is often used in online teaching in universities around the world [31]. WhatsApp application used in college has become a habit in recent times [32]. WhatsApp can be utilized in higher lecturer in a few ways to realize distinctive learning objectives [28]. The implementation of lectures on campus during the COVID-19 pandemic is currently forced to use applications that can be accessed remotely. Nowadays, research is focused on discussing the process and implementation of appropriate social media applications for use in distance learning.

In addition, the process and implementation of 21st century online learning in various universities has spread and built a wider social network following the development of the internet. On the other hand, based on the existing problems, it is very important to research the analysis of the use of social media applications and the perspectives of lecturers and students in online learning amid the current spread of COVID-19. This study answers: (1) Implementation of the use of social media in online learning during the COVID-19 pandemic? (2) The perspectives of lecturers and students on the use of social media and the obstacles experienced during online lectures. (3) What are the strengths, opportunities, weakness and obstacles of online lectures during the COVID-19 pandemic?

2 Material and Methods

This area portrays the strategies utilized within the inquire about, to be specific quantitative investigate methods with a study approach. This segment too examines the consider range, sample research procedures, information collection strategies and data analysis. Previously distributing the questionnaires, a pilot examiner to conducted from three colleges. Adjustments to their reactions, input, comments and recommendations are required. To dispense with a few explanations that are exterior the scope of the study.

A. Study Areas and Research Indicators

This research was conducted at three distinctive campuses in West Kalimantan Area, be specific (1) a Private University (PR) (2) a National/non-profit University (NA), and (3) a Public University (PU). Research chose three of these colleges since it too executed online learning amid the COVID-19 widespread. The investigation instrument utilized in this research comprised six fundamental categories with twenty-two items used in this study. The subtle elements of the rebellious utilized include (Table 1):

B. Procedure for Sampling, Data Collection and Analysis

This study was conducted in April 2021, after more than two semesters and the education system running online, the COVID-19 pandemic has brought various changes

Table 1. Inquire about Instrument Markers

Category	Question Instrument Details
Readiness of lecturers in carrying out online lectures	My online learning period teaches with online learning media The COVID-19 pandemic has impacted new skills in online learning RPS and lecture tools have been set for online learning
Online learning media	The online learning media used varies It is simple to access internet learning media. The media facilitates lectures in terms of understanding the material from a distance
Lecturer and student perspectives on the online lecture Framework	All courses can benefit from the usage of online learning media. Using online learning media makes learning/teaching easier, especially during the covid-19 pandemic. Support the implementation of online learning applied in universities or other educational institutions Learning / teaching online using media is more effective than teaching directly The system and implementation of online lectures run smoothly without a hitch

(continued)

Table 1. (continued)

Category	Question Instrument Details
Barriers experienced by lecturers and students	Slow internet network Expensive internet quota prices Limited access to the device Lots of distractions at home Luddite in using media or online applications Learning over the internet is less genuine It does not apply to lab lectures or practice. Certain lecture materials are difficult to interact with and teach. Difficult to interact and understand the material
The perceived benefits of online lectures	During the pandemic, lectures will continue. Online classes are more beneficial than traditional classes.

to education systems around the world being forced to run online education systems. This study uses a survey method developed by [33] and validated by [34]. This study uses a questionnaire designed with the help of the Google form application, then distributed to lecturers and students to obtain data. The questionnaire includes a series of questions to find out the perspectives of lecturers and students in implementing online lectures during the COVID-19 pandemic at the three universities.

The multistage sampling technique was used to choose colleges and respondents' samples. Subsequently selecting the province of West Kalimantan as the research area, purposive sampling was employed to pick three universities (1) a Private University (PR), (2) a National/non-profit University (NA), and (3) a Public University (PU). Which had been running lectures with an online system for more than two semesters. In the third stage, three study programs were selected from the three universities. Within the final stage of sampling, respondents were randomly selected from study programs at three universities and sent one hundred students and five lecturers from each college (Table 2).

Respondents in this ponder included teachers and students from colleges with an add up to 15 teachers and 300 understudies speaking to each college gotten after sampling. The researcher investigates the perspective of using social media from the side of lecturers and students. The data obtained will be analyzed and interpreted with theories and research relevant to the research topic. The SWOT analysis was utilized to examine in-depth inside variables (strengths and weaknesses) and external factors (threats and opportunities) that influenced online lectures for the COVID-19 pandemic at the university.

Table 2. Demography of The Participants

Participant (N)	College	Frequency
Lecturer	Private University (PR)	5
	National/non-profit University (NA)	5
	Public University (PU)	5
Student	Private University (PR)	100
	National/non-profit University (NA)	100
	Public University (PU)	100
Total of Participant		315

3 Result

Colleges must guarantee that the framework for actualizing the learning preparation amid addresses at the three campuses has been well arranged. This can be since the online address framework that must be applied amid the COVID-19 widespread is the proper way so that the conveyance of address fabric from lecturers to understudies can be carried out. Social interaction must be kept up between speakers and understudies and understudies with understudies themselves indeed in spite of the fact that they cannot be associated specifically, but utilizing social media applications. Online learning programs have to encourage learning through social intelligent [35]. This study provides insight into online lectures amid the COVID-19 pandemic based on the viewpoints of lecturers as well as students from three universities in West Kalimantan.

C. Readiness Lecturers During the Covid-19 Pandemic

The spread of the COVID-19 widespread flare-up around the world is constraining educators, understudies and the instruction framework to require place online with the assistance of social media tools. COVID-19 widespread has brought challenges, particularly within the learning handle [36]. Readiness for online lectures during the covid-19 pandemic necessary to be prepared, such as Semester Learning Plans, syllabus and other lecture tools that must be specially equipped for online speeches during this covid-19 pandemic. This is because online and conventional lectures are exceptionally in terms of time, location, and conditions and situations. The reactions of 15 academics to the lecturer apparatuses have been arranged in the chart below to offer their reactions (Fig. 1).

Research about uncovers the preparation of online address devices amid the COVID-19 widespread by teachers at the three colleges that we examined with an average of 77% having arranged online lecture apparatuses such as online semester learning plans, media and online applications that support distance learning.

The implementation of online addresses is exceptionally distinctive from coordinate learning so that maximum extreme planning is required so that the reason for passing on guideline materials can be conveyed to students. Be that as it may, arrangement for online media factors is approximately 50%, typically since online learning is carried out all of a sudden due to the spread of the COVID-19 widespread flare-up. Garad's research said that during COVID-19 online learning had started traditional learning,

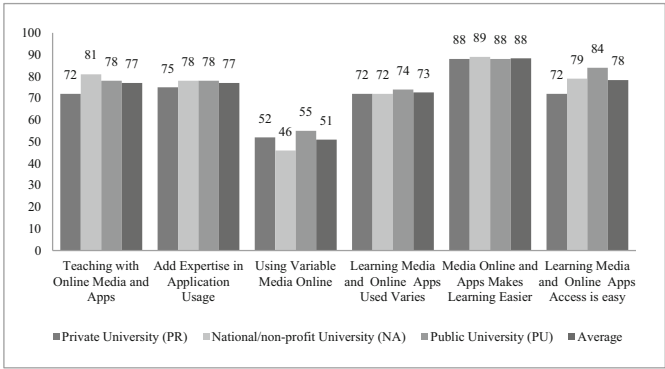


Fig. 1. Lecturer Readiness in Using Applications and Learning Media

causing many problems due to the lack of infrastructure and human expertise [37]. The utilize of media too encourages the coherence of distance learning by more than 80%. Teacher planning is virtuous by using various applications and social media so that the address handle does not appear repetitive and tiresome.

D. Lecturers and Students Perspectives on the Use of Applications Social Media

The research outcome presented in this section provides an overall figure of the perspectives of lecturers and students regarding online lectures carried out amid the COVID-19 pandemic and applications or social media that are considered effective in their use. The clarification is point by point within the taking after sub-chapters.

Overall, more than 90% of lecturers and students support online lectures using social media and applications that can help distance learning during pandemic. The execution of online lectures is still no more effective than direct learning, which is about 42% of lecturers think that way. This is because the lecturers have difficulty in providing teaching to students. After all, there are various obstacles (1) use of internet signals (2) requiring additional time in educating (3) more costs to purchase web share. In line with the acumen of instructors, 50% of understudies think that facilitate addresses are more

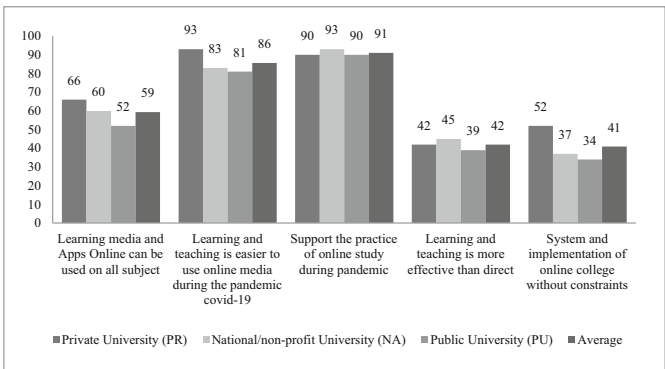


Fig. 2. Lecturer's perspective on the utilize of social media in online lectures

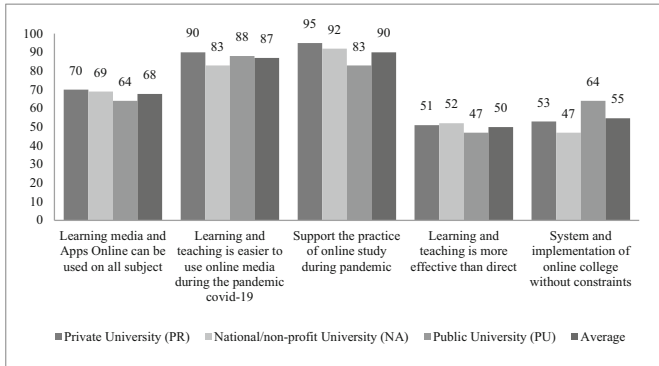


Fig. 3. Students perspective on the use of social media in online lectures

compelling as well as less difficult to execute, especially drenched in online learning, understudies have inconvenience understanding the fabric given by the speaker and after that cannot be free to ask questions since there are imprisonments.

Furthermore, 59% and 68% of lecturers and students think that online media and applications cannot be implemented in all courses because there are lectures that use laboratories and field practices then lectures are not optimal, especially in these lectures. In addition, the system and implementation of online speech have not gone well furthermore, there are still obstacles as many as 59% and 45% of students feel this way. Although the system in the implementation of online lectures has not run optimally and entirely, lecturers and students think more than 85% that social media and applications make it easier for lectures to be carried out even remotely during the COVID-19. All things connected to the system, equipment as well as internet coverage indeed need to be improved again so that this online lecture can be carried out properly as well as maximally so that satisfactory results are obtained.

E. Social Media Applications in Online Lectures

Implementation of learning performed in schools and universities cannot be carried out directly as long as the COVID-19 pandemic has not ended. Regulations were also created so that the implementation of education could continue. In line with these regulations, lectures at universities during the COVID-19 pandemic are all carried out online (online learning). Social restrictions and lockdowns imposed by the government have an impact on economic difficulties as well. E-learning has indirectly provided assistance to the education system with cost-effective methods [30] amid the COVID-19 pandemic. Social media, which is a long-distance communication tool between two or more people, is considered to be able to facilitate online lectures that are implemented during the current COVID-19 pandemic.

Social media is utilized as a device to ensure the exchange of educational information can take place [38]. Lectures that have taken place online have taken place in March 2020 (odd semester 2020) until now. Various social media applications are used in online lectures to make students easy and understand the lecture material.

Based on the questionnaire that has been distributed, it can be seen Table 3 above show the utility of social media applications used amid online lectures, it is known

Table 3. Social Media Applications in Online Lectures

No	Social Media Application	Frequency	Percentage
1	WhatsApp	157	52
2	Google Classroom	88	29
3	Edmodo	23	8
4	Zoom Meeting	13	4
5	Others	19	6

that the utilize of the WhatsApp application is 157 or 52%. Followed by the Google Classroom application as much as 88 or 29%. Understudies discover it simpler to utilize sorts of informing applications such as WhatsApp, agreeing to understudies since it is briefer and does not utilize a huge web share. Additionally, the utilize of WhatsApp in online learning makes it simpler for understudies to keep up with addresses indeed from a distance. Applications and media utilized in online lectures during the Covid-19 outbreak were mostly occupied by WhatsApp, almost 100% [39]. Online learning in universities also uses social media and even mobile applications such as WA because it can facilitate in-depth learning [40]. WhatsApp on the quadratic achievement test increases students' scores on achievement tests and regarding the impact of attitudes that has a forceful and positive effect on student attitudes [41]. WhatsApp is successful significantly in influencing student learning success as a technology that supports and enhances success [42].

Meanwhile, other applications used during online lectures are around 18%, the use of internet quota will be greater as well as spending will be more inefficient when using the Zoom Meeting application. The rest of the students sometimes do not attend online lectures due to various obstacles, such as where they live in border areas as well as remote areas so that the internet is inaccessible.

Researchers created WhatsApp Groups as a forum and facility online class for lectures during the covid-19 pandemic. Figure 4 shows WhatsApp as online lecturer medium



Fig. 4. Online teaching activities of lecturers using WhatsApp Group

for students and lecturers to discuss topics as well as teaching materials in a various image, audio, video, word and other file formats.

4 Discussion

Social media is a technology as well used for education in supporting learning activities [43] especially during the time of social restrictions amid the spread of the covid-19 outbreak. WhatsApp is being used to deliver lectures online during the general lockdown caused by covid-19 WhatsApp is also being used to explain lectures online during the lockdown caused by covid-19 [44]. Through these various social media such as WhatsApp, educators such as speakers and instructors can interface their understudies and join social media into their lessons, making further curiously, attractive and applicable [45]. Due to covid-19 elective learning offices are required, as a result of the utilize of social media such as WhatsApp, zoom is embraced by experts to instruct and learn in this challenging period since all understudies are at home [44].

Teaching and learning in all colleges, schools and instructive education are currently actualizing and relying on online learning consider the process of implementing the lockdown can control the deployment of COVID-19 from the educational environment. Student perspectives at post COVID Egyptian colleges found that most understudies protested to online learning compared to customary learning be that as it perhaps it was vital for the coherence of lecturers [46]. Research in South Korea states that the covid-19 widespread encompasses a positive impact on getting to materials, online communities, get to classes, inventiveness. On the other side, there are adverse effects such as mental weakness, course students [47]. Interest about the COVID-19 pandemic in Siam some college have cancelled workshops, conferences and sports activities. In Indonesia, the spread of the Covid-19 virus began in early 2020, so restrictions were imposed and the government through a circular letter from the Minister of Education and Culture (Number 3, March 3, 2020) has required lectures, seminars, activities that can cause crowds to be postponed and carried out online.

Teachers and students share their importance and support for online education [48] should be done in their own homes. So that flexible rules are enforced so that activities can be enforceable even though they are not from classes, offices or institutions such as WFH (Work From Home) by the government. Furthermore, Work From Home (WFH) is one way to prevent the spread of the covid-19 virus which has been regulated and implemented to require all institutions from the education sector to replace all offline teaching and learning processes to online [49].

Our study shows that the execution of online lecturers for students in higher education is appropriate for more than 90%, lecturers and students support online learning amid the pandemic (Figs. 2 and 3). The education system in Indonesia at all levels of education applies online learning [50]. All efforts have been made by all stakeholders so that the education system does not stop and the quality of learning does not decrease at all levels of education, one of which is through online learning.

Table 4. SWOT analysis of Strengths, Weaknesses, Opportunities, and Threats of online lectures during the covid-19 pandemic

Strengths	Weaknesses
<p>More than 80% of participant lecturers receive lectures using online media as well as applications and making distance learning easier around 77% of lecturers also teach using media and applications to make work easier. It is also supported by the preparation of materials and equipment and systems that have been prepared for the continuity of online lectures.</p>	<p>Around 68% of students think that the use of social media and online lecture applications cannot be applied to all lecture subjects approximately 59% of lecturers also consider that not all lectures can use applications and online media. That is because there are courses that require going into the field to collect data, laboratory lectures and the variant.</p>
<p>Online lectures using social media and applications have been supported by more than 90% of lecturers from three universities that were sampled in this study. Nearly 80% of lecturers returned that the use of social media and applications was effortless to utilize as long as helped lectures run on time and lecturers could convey material to students even from a distance.</p>	<p>Only 50% of students and 42% of lecturers feel that online lectures are more effective than in-person or face-to-face lectures. They find it difficult to express opinions and ask questions due to time constraints and the poor signal from the region</p>
Opportunities	Threats
<p>Lecturers think about 73% that lectures are more varied because they did online using social media and demands More than 75% of lecturers' expertise in using online applications and social media has increased because they use them more often during online lectures and take part in training on the use of the platform</p>	<p>The system and implementation of online lectures run without problems. Only about 55% of students feel without problems, the rest think there are many obstacles in online lectures at certain times, such as electricity and internet connections have challenges so that addresses cannot run optimally. As for lecturers, only 41% felt that online lectures were without problems, the remainder had issues and difficulties in providing understanding and assessment for their students.</p>

4.1 Analysis SWOTs

Considering that online lectures with applications and social media need to be carried out, it is deemed necessary for researchers to do SWOT. This analysis uses indicators from the implementation of online lectures that take place in universities to determine and measure readiness, lecturers and students' perspectives, obstacles and perceived benefits during online lectures amid the COVID-19 pandemic. The SWOT analysis is carried out to acquire data and measure the readiness (strengths and weaknesses) of lecturers and students who carry out online lectures and the challenges (opportunities and threats) faced by lecturers and students at the university. The activities from the

SWOT analysis are described in Table 4. There are many applications and social media that can be applied to facilitate online lectures to the maximum, such as WhatsApp messaging applications, Zoom meeting, Google-class Room and others.

The main strength highlighted in Table 4. is that almost 90% of the majority of lecturers have prepared the implementation of online lectures that must be carried out during the pandemic and students to think that the use of social media and applications is easy to use so that it helps lectures in a timely manner and obtains material even from a distance. In addition, the use of various online applications and social media during online lectures that have lasted for almost two years has made lecturers' skills in using applications more expert than before, because they have participated in various training such as operating the online application. Distance education capacity in higher instruction has higher fulfilment than other instruction levels in line with this the ought to increment separate instruction understanding by higher instruction partners [51] considering the times of science and technology will support this.

On the other hand, there are findings that online lectures that use applications and media cannot be applied to all lectures at universities, especially in courses that require students to enter the field, use laboratories and even look for direct data. There are obstacles such as loss of internet connection, unsupported signals, bad weather and power outages are arduous for students to buy internet quotas, which are obstacles for lecturers and students to run online lectures during a pandemic. This is a weakness, it can be seen in Figs. 2 and 3 where less than 50% of lecturers and students consider online lectures not yet fully effective, this is also a threat to the current education system where face-to-face learning cannot be carried out due to various limitations and to avoid the disseminate of the covid-19 outbreak. Efforts constructed by the government through the ministry of education and culture in dealing with the pandemic situation that has had an impact on education in Indonesia, primarily providing basic assistance such as tuition assistance for students at the tertiary level and operational assistance for schools so that the assistance is directly used to meet the requirements of students such as quotas internet, an electronic device which support online learning The Ministry of Education and Culture of the Ministry of Education and Culture launched a policy to support students and educational units affected by the Covid-19 pandemic, both State University and Private Higher Education students by facilitating the need for data packages (internet) for online lectures, as well as implementing This policy to significantly ease the payment of the Single Tuition Fee is regulated in the Regulation of the Minister of Education and Culture Number 25 of 2020 concerning Standards for Higher Education Operational Cost Units at State Universities within the Ministry of Education and Culture [52].

The positive actions that the government is trying to take to support the continuity of education so that it continues to run amid this widespread are exceptionally supportive besides trusted that it can increase knowledge, skills and capacity for students and the nation's children for mutual progress.

5 Discussion

The spread of the COVID-19 pandemic outbreak that has occurred throughout the world has had an effect on all sectors including changing the education system in an instant, from face-to-face learning to now all are forced to learn online.

Implementation of learning performed in schools and universities cannot conduct directly as long as the COVID-19 pandemic has not ended. Regulations were developed so that the enforcement of education could continue. In line with these regulations, lectures at universities during the COVID-19 pandemic are all carried out online (online lecturers). Overall this shows that most lecturers and students from three universities in West Kalimantan province receive online lectures using online applications and social media in distance learning because it makes it easier for them to communicate and learn.

Perspectives of lecturers and students who have been conducting online lectures for almost two years. The address has been conducted using apps and social media to enhance the implementation of education. It is well recognized that the usage of online apps and social media in the educational system is on target as a source of convenience and assistance to ensure that lectures are held. Despite the challenges of implementing online addresses, the government's support and aid in the form of internet quotas and education cost reductions for the benefit of continuing education in this nation has grown easier.

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