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ONLINE TEACHING BY DIGITAL NATIVE AND DIGITAL IMMIGRANT LECTURERS OF HIGHER EDUCATION

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ABSTRACT

The present study is aimed at taking a deep look at the differences between digital native and digital immigrant lecturers' strategies in doing online learning in higher education. Online teaching is the teaching carried out not physically face to face between students and lecturer, rather by the use of any internet platform in distance. Digital native lecturers are lecturers born in the era of knowing the growth of technology and very familiar and skilled of operating any technological media of teaching (in this research, for those lecturers born after 1980). Digital immigrant lecturers are lecturers born in the era when the technology was not yet grown and popular and they still maintain to use conventional media of teaching (those lecturers born before 1980). The objectives of the present study are (1) to investigate how digital native lecturer is different from digital immigrant lecturer in the stage of implementation in teaching online courses for higher education student? This includes the problems such as their perception toward teaching online course, what platform they use for teaching online course, how they use the platform to implement and evaluate the online course; (2) to examine how digital native lecturer is different from digital immigrant lecturer in the stage of obstacles in teaching online courses for higher education student; (3) to elaborate how digital native lecturer is different from digital immigrant lecturer in the stage of overcoming obstacles in teaching online courses for higher education student. The findings of the present study provides insight on the practice of online teaching by both digital native and digital immigrant lecturers in higher education, then provides insight on the obstacles and strategies for solving them. Mostly (80%) of all lecturers have positive perception toward online teaching; merely five (mixed male and female lecturers) out of 21 lecturers who have negative perceptions and those are only digital immigrant lecturers (born before 1980) from different departments. Only few digital immigrant lecturers have negative perception toward online teaching. There are no disparity (no significant difference) between digital immigrant lecturers and digital native lecturers in terms of obstacles they face in online teaching as well as in solving the obstacles. Considering that there are many positive things in the use of technology in online teaching; in this case technology can optimize the quality of teaching, this can be the basis for universities broadly to make policies about the percentage of online teaching in the post-pandemic era with applicable terms and conditions. With background insight and the gap in technology literacy between digital native and digital immigrant lecturers, universities need to routinely provide training on the use of various technology-based platforms that support the optimization of teaching.

Introduction.

The Covid-19 pandemic has made the learning system change drastically from face-to-face learning to online learning at home. Since the emergence of positive cases of Covid-19 patients in Indonesia, the Government of Indonesia through the Ministry of Education and Culture implements a study and work policy from home since mid-March 2020. One of the government policies in breaking the chain of transmission of Covid-19 is by limiting community interaction which is implemented in the term "physical distancing". However, the implementation of the physical distancing policy can hamper the rate of growth in various fields of life, both economic and social and of course have an impact on the education sector. The decision made by the government to dismiss students, move the teaching and learning process at school to be at home by implementing the Work from Home (WFH) policy caused many people are worried.

Since Covid 19 outbreaks last two years, every aspect of life has undergone changes. Including aspect of education, lecturers of higher education have been forced to do online education or distance learning. Because of the rush situation, there was no preparation from the government to conduct online learning. Recently, it has been two years of pandemic. There have been so many online or offline trainings on doing online classes for lecturers to join. There has been platform made by the universities for doing online classes with so many features on it. The question is that are they used effectively by the lecturers and the students? Do the features help the lecturers and the students in achieving goal of the courses they are doing? Yet, still there was a consideration about differences between digital native and digital immigrant lecturers' strategies in taking the benefit from this kind of digital stuff in doing online classes.

The absence of direct (offline) learning is a new experience. The learning process shifts from face-to-face (offline) to using online media as a virtual communication medium. The convenience of the interaction of the parties involved, students, lecturers, the campus, must be built and realized together through communication in the midst of a crisis to reduce entropy or uncertainty. Online education offers a new learning culture. Students can learn independently, access learning materials anytime and from anywhere.

The online learning system is implemented as a solution to suspending face-to-face lectures without stopping lectures (Zhang et al, 2020). Online learning itself can be interpreted as a learning experience in a synchronous or asynchronous environment using different devices (eg, cellphones, laptops, etc.) with internet access. In this environment, students can be anywhere (independent) to learn and interact with instructors and other students (Singh and Thurman, 2019).

Online learning has indeed become an alternative learning solution for lecturers and students in the midst of this pandemic. However, good preparation, especially readiness in the use of supporting devices is very necessary in implementing online learning so that lecture activities can run effectively (Ana et al, 2020; Ali, 2020). Online learning provides flexibility for implementation lectures so that it can be widely used. In addition, the implementation of online learning is considered to be able to increase the use of technology in learning as well as increasing student learning independence (Akkorful and Abaidoo, 2020; Huang et al, 2020; Word, 2020).

This present study is aimed at taking a deep look at the differences between digital native and digital immigrant lecturers' strategies in doing online learning in higher education. For digital immigrant lecturer, they are not facing students that their educational system designed to teach (Prensky, 2001). They rather print the topic of the course to read than just read and edit it on screen. They like to send message to the whatsapp group to ask whether they have already got today's lesson topic on their e-learning. Even they just phone one of the contact persons of the group of students to merely ask whether they have already seen the quiz on e-learning. In contrary, digital native-born in the last two decades-has already live together with these digital stuffs like computers, video games, cell phone that help them a lot with communicating, browsing new information, getting news instantly, sending instant messages, email, even doing shopping and other activities using digital stuff in this digital era. They are used to these digital stuffs, therefore, when they have to teach online, it is just like a piece of cake for them to do. They already think and process information fundamentally differently from digital immigrant lecturers (Prensky, 2001a). Meanwhile, digital immigrant lecturers should adapt and gain knowledge and at the same time they have to use it directly for delivering courses. Therefore, it is important to see deeply on the benefits, challenges, and strategies used by digital native and digital immigrant lecturers in delivering courses in higher education.

Some previous studies were found on delivering online classes in this Covid-19 pandemic. But to see the benefits, challenges, and strategies used by digital native and digital immigrant lecturers was

none of them. First, Djumingin et,al. (2021) looked at the effectiveness of online education in the students' perspectives. Furthermore, she explained that the students are already getting used to online learning and had no problem at all in online education. Tartavolea et,al. (2020) wrote that lecturer and students are very fast to adapt to online learning, therefore both synchronous and asynchronous interaction and assessment method were employed. Yet, problem persisted. It showed reduce interaction and passive delivery from the side of the lecturers. Rohman et, el. (2020) took a deep consideration of online learning from the students' perspective. He insisted that most of the students had negative comments. They said that online learning was dominated by assignments. Besides, unstable and high cost of internet connection was also the problem. Suarez (2021) wrote in her dissertation that online platform did not promote interaction between professor and student; therefore online learning was not possible of having feasibility. Osman et, al. (2021) took a deep look at the relationship between perceived usefulness, perceived ease of use and self-motivation and e-learning. The study revealed that the independent variable positively influenced e-learning effectiveness. Yi Li et, al. (2019) proposed that digital native and digital immigrant had different need in their professional development. Amrizal and Yusriati (2021) stated that online learning resulted decrease in the quality of work in the lecturer side and enthusiasm in the side of the students. This is because of boredom and burdensome and also expensive. Bahasoan et, al. (2020) mentioned that online learning is effective yet inefficient, effective in coping teaching in the pandemic era, inefficient because of the high cost. Zheng et, al. (2020) wrote that there was a correlation between students' proactive personality and online interaction quality. Tsang et al. (2021) wrote that online learning recently is not the same with conventional online learning because of the limited time the students, the instructor and the institution had to adapt to the online learning platform. From previous studies above, this present can be posit that the digital native and digital immigrant lecturers have never been touched especially in employing online education as a response for the covid 19 pandemic.

Based on the background of study above, the problems of the study are formulated as follows:

1) How is digital native lecturer different from digital immigrant lecturer in the stage of implementation in teaching online courses for higher education student?

2) How is digital native lecturer different from digital immigrant lecturer in the stage of obstacles in teaching online courses for higher education student?

3) How is digital native lecturer different from digital immigrant lecturer in the stage of overcoming obstacles in teaching online courses for higher education student?

Contribution of The Study.

For scientific contributions in the field of teaching in tertiary institutions, this research provides insight into the practice of online teaching carried out by digital natives and digital immigrant lecturers, which includes differences in perceptions of online teaching, the platforms they use and how they use these platforms for online teaching. This research also provides insight into the differences in constraints and strategies to overcome obstacles in online teaching between digital natives and digital immigrant lecturers. From the results of further research, it is then revealed how to change lecturer perceptions from negative to positive towards online teaching. From the differences in technology literacy between lecturers, the university needs to provide motivation and provide training to operate various platforms for teaching quality. Since it is realized that various variations of teaching platforms that use technology can give color to the quality of teaching and the teaching becomes more optimal, fun, and not monotonous.

With various challenges and lecturers' online teaching practices in the pandemic era, many positive things have been obtained, including the increasing number of teaching platforms using technology and also lecturers having high technology literacy due to the demands. In the post-pandemy era, the practice of face-to-face teaching has resumed, but with a campus policy of 30%, it is still allowed for online classes. On the one hand, this gives a view that there are a number of things that are still being implemented and that are more optimal, namely by using e-learning in teaching and also some platform for evaluating student portfolios. Future research is expected to investigate hybrid learning, namely learning that combines offline and online learning using electronic learning (e-learning). This hybrid learning is expected to bear higher quality and successful teaching for student competencies.

This study uses mixed data; qualitative data and quantitative data. Qualitative data are the main data, namely the results of direct interviews with lecturers, while quantitative data are used as complementary data, namely distributing questionnaires to lecturers and students. Even though it uses

mixed data, this research focuses on a descriptive qualitative research approach, and the research is not a mixed quali-quanti research. To ensure the validity and objectivity of this study, triangulation and questionnaires were also carried out. Research with mixed data is a challenge for researchers and also a direction for future research to combine qualitative and quantitative research methods to measure the validity and reliability of research for quality research outputs.

Several concepts/theories from previous experts/researchers regarding online teaching, digital natives and digital immigrants, and other related aspects provide a strong understanding and foundation for conducting this research. If the previous research addressed about the differences between digital native and digital immigrant teachers in the era of offline learning, this research is in the era of online learning.

Research Methodology.

This present study uses descriptive qualitative research design. The study describes how digital native lecturer is different from digital immigrant lecturer in the stage of implementation in teaching online courses for higher education student, how digital native lecturer is different from digital immigrant lecturer in the stage of obstacles in teaching online courses for higher education student, and how digital native lecturer is different from digital immigrant lecturer in the stage of overcoming obstacles in teaching online courses for higher education student. The researchers themselves are as the key instrumenst of the research. The object of the study is all the lecturers who are using e-learning of UIN Maulana Malik Ibrahim Malang, Indonesia. There are 21 representative respondents (mixed male and female lecturers): UIN lecturers across different departments. Moreover, there are 12 representative respondents: UIN students across different departments. Primary data are from depth-interview to UIN lecturers, secondary data are from questionnaire to UIN lecturers, and supplementary data are from depth-interview to UIN students. The instrument needed to be used is direct interview and online questionnaire to differentiate between digital native and digital immigrant. The data are in the form of explanation whether or not the lecturers use the technological stuffs. The procedures of collecting the data are: doing direct interview and spreading questionnaire for all lecturers in UIN Maulana Malik Ibrahim Malang, then classify them into digital native and digital immigrant. The procedures of data analysis uses Miles and Hubberman (2008) analysis, that is to analyze the benefits, challenges, and strategies of teaching they employ in every stages of teaching-planning, implementing and evauating, displaying the data based on the teaching process, saturating the data, and the last is drawing conclusion. The conclusion is in form of explanation about the benefits, challenges, and strategies the lecturer use when they do online courses. To maintain the validity of the data, the researchers use member check, where the lecturers are able to read the explanation about them, to ensure that they are valid. One validator is also invited to give fresh and different perspective to make the research more valid.

Findings.

The first problem of the present study is to investigate how digital native lecturer is different from digital immigrant lecturer in the stage of implementation in teaching online courses for higher education student. This include their perception toward teaching online course, what platform they use for teaching online course, and how they use the platform to implement and evaluate the online course. From the diagram below, it is known that mostly (80%) of all lecturers have positive perception toward online teaching; merely 5 out of 21 lecturers who have negative perceptions and those are only digital immigrant lecturers (born before 1980) from different departments.
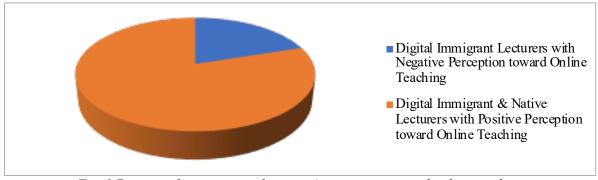

Fig. 1 Diagram demonstrating lecturers' perception toward online teaching

They who have negative perception toward online teaching mostly think that there is no direct interaction/ discussion between students and lecturer. They also say that the age factor seems to affect lecturer's motivation in increasing competence to use technology in learning. Students revealed that they had more difficulty in understanding the material during online learning compared to offline learning. Moreover, they state that the limitations of communication via online learning have an impact on the ability to build collaboration in group discussion activities. Unstable internet connection / signal interference often makes teaching and learning process does not run smoothly. Then, it is hard to evaluate students' work accurately.

On the contrary for those who mostly have positive perception toward online teaching think that online teaching is a must because of pandemy. They also say that online teaching challenges the lecturers to be more creative and innovative in using any online platform of teaching. Online learning train students to be independent and so they not only learn through lecturers but also have to look for other sources of knowledge such as in books, literacy and so on. Then, the students' learning can be optimal. When lecturers conduct online learning with WFH in their respective homes, they can be more productive in their work such as writing articles/research; compiling modules/textbooks/other teaching materials. Lecturers also think they have more time to score students' work and for family, better time management and more rest time.

Platform they use for teaching online course include whatsapp group, telegram group, e-learning, zoom, edmodo, moodle, google classroom google form, e-mail, google meet, youtube, power point, modul, video pembelajaran. It is described that 50% of digital immigrant lecturers use whatsapp group, zoom, E-mail to share and discuss materials as well as the project submission. This can be seen from the diagram below.
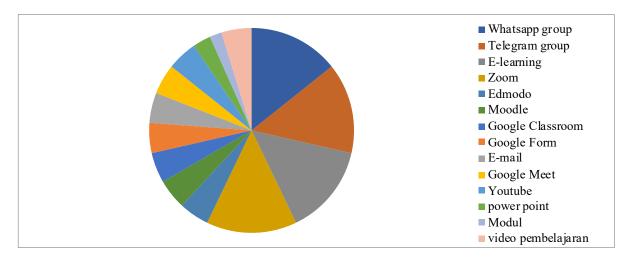

Fig. 2 Diagram demonstrating Platform the lecturers use for teaching online course

Whatsapp is one of the most popular communication media used today, Whatsapp is an application that is used to carry out conversations using text, voice and video. WhatsApp is to stay connected with friends and family, anytime and anywhere. WhatsApp is free and offers a simple, secure, reliable messaging and calling experience, available on phones all over the world. Furthermore, according to Niken, Secretary General of the Ministry of Communication and Informatics, WhatsApp is the application that people are most interested in communicating via the internet. "83% of our 171 million internet users are WhatsApp users, which connects people."

E-learning is information and communication technology to enable students to learn anytime and anywhere in Dahiya (Hartanto, 2016). E-learning has two types, namely: Synchronous that means at the same time. The learning process occurs at the same time between educators and students. This allows direct interaction between educators and students online. Synchronous training is an illustration of a real class, but is virtual (virtual) and all students are connected via the internet. Synchronous training is often referred to as a virtual classroom. Second, Asynchronous means not at the same time. Learners can take different learning times with educators providing material. Asynchronous training is popular in e-learning because students can access learning materials anywhere and anytime. Students can impose learning and complete it at any time

according to a predetermined schedule range. Learning can take the form of readings, animations, simulations, educational games, tests, quizzes and collection of assignments.

Edmodo is a safe application used by both teachers/lecturers and students/students. Jeff O'Hara is as a learning platform used to collaborate and connect between students and teachers in sharing educational content, managing projects or assignments and handling notifications for each activity. In another definition, Edmodo is a safe and free social network-based learning that makes it easier for teachers to create and manage virtual classes so that students can connect with classmates and teachers anytime and anywhere (Balasubramanian, 2014). Another definition of Edmodo is that Edmodo is an educational application with a social media platform and cloud like Facebook which can be used in learning. In line with Gatot's view, Sudibjo (2013) argued that Edmodo was created using a concept similar to Facebook, where the purpose of making it was specifically for the education sector which could support the online learning process.

Moodle is a learning platform specially designed for educators, administrators and students. Moodle actually stands for Modular Object-Oriented Dynamic Learning Environment. This platform is classified as a CMS but specifically for educational purposes. Google Classroom or Google classroom is a mixed learning platform for the scope of education that can make it easier for teachers to create, share and classify each paperless assignment, (Afrianti in Yustianti and Novita, 2019. Google Classroom is used to maximize the process of delivering material to students but it is done online so that the material can be delivered as a whole. Google Classroom is an internet-based service provided by Google as an e-learning system. This service is designed to help teachers create and distribute assignments to students in a paperless manner (Hakim, 2016). Zoom is a free HD meeting app with video and screen sharing for up to 100 people. Zoom is a communication application using video. The application can be used on a variety of mobile devices, desktops, to telephones and room systems.

Then, regarding to how the lecturers use the platform to implement and evaluate the online course, it is investigated that 50% of digital immigrant lecturers share materials and give tests through WAG/ E-learning, use zoom to explain the materials, and give tests through google form. Whereas, digital native lecturers share materials, discuss and give tests through Whatsapp group, Telegram group, E-learning, Zoom, Edmodo, Moodle, Google Classroom Google Form, E-mail, Google Meet, Youtube, power point, Modul, video pembelajaran.

Reflecting on the current situation of the Covid 19 pandemic outbreak, learning development has had a serious impact so that the learning process focuses more on the role of lecturers to continue to innovate in utilizing advances in digital technology so that teaching and learning activities can be carried out in the midst of a pandemic even though the government requires it to reduce activities that involve many people.

However, online learning during this pandemic should be utilized by lecturers to develop digital competence so that the digital mode used by each lecturer can be more varied. This aims to avoid student boredom in studying and absorbing information related to teaching materials, as well as to avoid monotonous patterns carried out by most of the lecturers.

Conventional systems that have occurred so far should be combined with multimedia communication media, especially since the discovery of this multimedia communication media. Due to the nature of the internet which can be contacted at any time, it means that students can take advantage of educational programs provided on the internet at any time according to their free time, so that the space and time constraints they face in finding learning resources can be overcome. With rapid developments in telecommunications, multimedia, and information technology; listening to lectures, taking notes on paper is certainly out of date. According to Abdulhak & Darmawan (2005), there is a classification of the use of ICT (Information, Communication and Technology) into three types, namely: first, ICT as an educational media (auxiliary tool), namely only as a complement to clarify the description conveyed. Second, ICT is as a source, namely as a source of information and seeking information. Third, ICT is as a learning system.

In line with the development of ICT (Information, Communication and Technology), various online learning models have emerged. Then, the term web-based school (web-school) or internet-based school (cyber-school) is notorious, which uses internet facilities. Starting from these two terms, various new terms emerged in learning using the internet, such as online learning, distance learning, web-based learning, e-learning (Kuntarto, 2016). The very rapid development of technology is currently the gateway for the arrival of the industrial revolution 4.0 or industry 4.0. According to (Davis, 2011) industry 4.0 is a cyber-physical

system which means technology is no longer a 'tool' but is embedded in people's lives. Artificial Intelligence, nanotechnology, biotechnology, autonomous vehicles, and 3D printing are examples of today's increasingly widespread technological developments. Speed, reach/coverage, and impact are three reasons from Schwab (World Economic Forum, 2016) which explains that the current technological transformation is not an extension of the third industrial revolution, but rather the arrival of the industrial revolution 4.0. Some of these applications can be the first step for universities when compiling e-learning in implementing Blended Learning to realize Education 4.0 which become the New Normal in the Industrial Revolution 4.0 era after the Covid-19 pandemic.

Furthermore, regarding to how digital native lecturer is different from digital immigrant lecturer in the stage of obstacles in teaching online courses for higher education student and how digital native lecturer is different from digital immigrant lecturer in the stage of overcoming obstacles in teaching online courses for higher education student, are elaborated as follows. There is no disparity (no significant difference) between digital immigrant lecturers and digital native lecturers in terms of obstacles they face in online teaching as well as in solving the obstacles. Either solution can be better among the others. They may face similar *o*bstacles in teaching online courses for higher education student such as:

1) No direct interaction/ discussion between students and lecturer

2) The age factor seems to affect lecturer's motivation in increasing competence to use technology in learning.

3) It takes longer time to prepare online learning

4) Lack of interaction with students because students are passive during lectures.

5) During online learning, students feel unprepared, unaccustomed not going to class and so they are lazy to do assignments.

6) Students do not really understand the lecturer's explanation in the form of PDF file, but the lecturer should add a video to make it clearer

7) The lecturer should not only use WhatsApp to explain the material but also have Zoom to make the instruction clearer.

8) Students revealed that it was more difficult for them to understand the material given during online lectures when compared to offline lectures.

9) Online learning is very difficult, because in mathematics courses, especially those related to calculus and linear calculus which require a counting process.

10) Lecturers tend to give a lot of assignments but lack of feedback

11) WhatsApp groups and zoom are relatively easier platforms to use, and also less complicated, and simpler.

12) While the use of e-learning applications is too complex, one must take some training first so that it can be optimally used.

13) When learning takes place, students do not focus on the material presented

14) (1) The monotony of the media used as learning materials so that students get bored easily and are not motivated in teaching and learning activities, (2) Dominant learning is not yet interactive, (3) Student behavior is not easily noticed and monitored by lecturers so that students become more difficult to manage, (4) The online assignments are given so that students become bored, (5) The assignments are piled up so that students are not enthusiastic about online learning, and (6) the evaluation process cannot run well because it is done at home so that lecturers cannot monitor the integrity of the students.

15) The difficulty of studying online, especially when checking assignments and thesis guidance for students online, is difficult if you have to check assignments and thesis online.

16) Another difficulty is checking aspects of student abilities.

17) The limitations of communication via online learning have an impact on the ability to build collaboration in group discussion activities.

18) Virtual discussion facilities have limitations in facilitating group work, especially if students are passive in discussions and this can lead to communication failures and difficulty in creating teamwork.

19) Signal interference is often the reason for students not to turn on the video, so that lecturers and other students cannot see each other's expressions in discussion.

20) Lecturers also have difficulty in conducting assessments or evaluations because the assessments given cannot be given and supervised directly when students are working so it is difficult to know the results of student work done independently or plagiarism.

21) Most assignments given are in the form of case studies, studies, and making learning videos. As a result, students have to collect various supporting information from the internet. This activity makes internet quotas more wasteful, takes longer to complete tasks, and demands student creativity.

22) Preparation that must be done in online lectures is also considered to take longer. This is because there is no direct interaction between lecturers and students, making lecturers have to optimize the media used so that the material presented can be understood well by students.

23) Lecturers are constrained in understanding the material. Moreover, for practicum courses, the use of virtual laboratories is not popularly used, and it is considered less than optimal in helping students understand the given practicum material.

24) Lack of building interpersonal and emotional relationships, as well as difficulty in accessing students in terms of ability to understand material and engagement during the learning process.

25) If there are new courses for which students do not have prior knowledge, it is necessary to reduce achievement, because there will be differences in the results obtained from online and offline learning. In contrast to courses where students already have background knowledge, there tends to be no difference in results between online and offline learning.

Network conditions are very important for the online learning process to take place. Many students complain about unstable network constraints. The lack of network access is not only complained of by students who live in remote areas, but also complained by students who are located in urban areas, especially when the location where they live experiences a power outage, where this can also be impact on network conditions that do not support. This makes students participating in online learning become a little hampered when they want to take part in learning activities and some even cannot join at all at a predetermined time.

The online learning process might only take place during the Covid-19 period. In terms of preparing lecture learning materials, many of them were not well prepared including the material taught and also in terms of the students themselves who did not respond when having online lectures (students are not active). In terms of understanding, because explanations delivered during online lectures are different from direct lectures; during a direct learning, students can easily listen and communicate related to the material delivered by lecturers whereas during online learning, it is not delivered optimally due to limited time constraints.

Distance learning or online (in the network) is a learning method that requires learning media that must be owned by students, namely gadgets. Even though not all students have the same gadget sophistication, gadget sophistication influences the online student learning process. This is because when studying online, there are some students who do not have Android facilities to carry out online activities so that sometimes they find it difficult to gain access of internet network when android is lowbat and sometimes goes out suddenly.

Students feel dissatisfied with the learning time which is relatively shorter than conventional learning. This can be seen based on the results of interviews that have been conducted with several students who generally answer that the time available during online learning is less effective. Limited study time resulted in reduced student understanding, although there were some respondents who stated differently because they might do a lot of other activities after participating in online learning.

Online learning should present interactive learning; ideally, students remain active in learning conducted. Therefore, in online learning students must be able to do various active activities both physically and spiritually such as classroom learning included in online learning, actively solving problems, actively expressing opinion to help gain an understanding of himself regarding the material being studied and discussed (Nurhayati, 2020). Learning can be done with media google classroom instead of WhatsApp that does not have adequate facilities for student activity. When the media used by lecturers is only power points and modules, there is no discussion forum presented. Students are limited to only accessing material, completing assignments from lecturers.

When learning takes place, students do not focus on the material delivered, because there is no interaction between lecturers and students. Therefore, lecturers should design more interactive learning. In the process of learning activities, there are several things that must be considered in increasing student concentration, including the use of applications that support the learning process, and the use of

interactive media and teaching materials (Fitriyani et al., 2020). Choosing the right teaching materials such as learning videos can help students understand the material which proves that lecturers' perceptions of online learning carried out during a pandemic are positive (Setyaningsih et al., 2018). Moreover, the strategies made by the lecturers in overcoming obstacles in teaching online courses for higher education student are as follows:

1) The lecturer or other students may give feedback to students' work

2) Giving a survey to students through google form by asking them to choose what learning media they like.

3) They use various learning platform to share materials, give the tests, and provide feedback/ evaluation

4) There should be a quiz every meeting to measure students' understanding, so the lecturers can see students' understanding of the material presented at previous meetings through the results of student answers on Quizizz.

5) Lecturer design interactive learning with the use of applications that support the learning process, and the use of interactive media and teaching

6) In online learning, students must be able to carry out various active activities, both physically and spiritually, such as classroom learning, including online learning, actively solving problems, actively expressing opinions to help gain understanding for themselves regarding the material discussed.

7) Make another lesson plan if suddenly there are obstacles that hinder the learning process. Next is to make interesting learning videos, innovative learning so that students increase their learning motivation and it is easier to understand the learning given.

8) Selection of the right teaching materials such as learning videos can help students understand the material

9) Have a good internet connection, Have a supported learning device, Familiar with the devices, Have knowledge of the good use of the digital devices, Have good ability to use the digital devices, Have space to study at home

10) Lecturers must be able to create learning models that provoke students' motivation to actively discuss, for example by providing discussion material that is up to date, close to the millennial world, but still intersects with the content of the material being discussed.

11) Changing the learning method which initially will be virtual or synchronous to asynchronous by recording learning videos which are then distributed to students directly or uploaded on Youtube, or also by giving independent assignments and providing materials directly.

It is understandable that online learning limits communication between lecturers with students and students with other students. Limited communication affects the ability to build collaboration in group discussion activities. Virtual discussion facilities have limitations in facilitating group work, especially if students are passive in discussions and this can lead to communication failures and difficulties in creating teamwork (Yustika et al., 2019)(Herdiana, 2020). Signal interference is often the reason for students not activating the video, so lecturers and other students cannot see each other's expressions in discussion and question and answer forums. For that, lecturers must be able to create a learning model that stimulates student motivation to actively discuss, for example by providing up-to-date discussion material, close to the world of millennials, but still in line with the content of the material discussed.

Online learning is an inevitability of choice during a pandemic. Currently, it has several advantages in student perception. Some students consider that class schedules during online learning become more flexible because lecturers do not teach according to the usual face-to-face class schedule, arranged according to the lecturer's agreement and students. Some other students think that online lectures are simpler, they do not need to take a shower, they can lie down at home, and they do not need to be afraid of being late for class because there are no rules locking virtual classes. Some students think that online lectures save more energy and transportation costs because they do not have to go to campus to study. In addition, students think that online lectures allow learning rhythms to be adjusted to their respective abilities, because students can repeat material several times until they understand the material presented by the lecturer.

The success of students in learning is influenced by the technological media used. The use of smartphones and laptops in online learning can improve student learning outcomes. However, they sometimes experience difficulties when utilizing the media. There are many advantages of using

information and communication technology in implementing online learning. However, the use of this technology is not free from unexpected equipment problems or commonly called technical constraints.

Discussion.

Online learning is currently a difficult choice for educators to make during the Covid-19 pandemic. The possibility of educational institutions becoming a new cluster for the spread of the virus is one of the bases for making decisions about implementing online learning. Therefore, ready or not, all educational institutions, including higher education, must carry out lectures online. Of course, this has made several universities stutter in responding to distance learning decisions until the pandemic is under control. However, the choice is to carry out this decision and conduct online learning.

Online learning is learning that utilizes technology such as web, email, zoom meetings, chats in whatsapp groups, where lecturers only act as facilitators and students can study without being limited by space and time according to the speed and convenience of each study, so that they get a better learning experience (Dhull & Sakshi, 2017). Online learning requires a lot of resources and careful learning planning. The ability to use technology is the main thing. The delivery of content/learning materials needs to be packaged in such a way that it requires innovation and creativity in the learning design. This means that even though learning is carried out remotely/online, lecturers must be able to increase student activity through the application of interesting learning media by utilizing quiziz educational games (Nurhayati, 2020).

Perception is the interpretation given by individuals to the stimuli they receive in the environment (Zamista et al., 2020). Perception can also be said as the process of interpreting the stimulus received by the five senses into an understanding (Ningsih, 2020; Zhafira et al., 2020). Apart from that, perception can be interpreted as the experience and impression that a person gets after seeing or experiencing and interpreting an object (Setyaningsih et al., 2018). In this study the perceptions that will be seen are the perceptions of students and lecturers in online learning during a pandemic.

Distance Learning is a teaching and learning process that is carried out remotely through the use of various communication media. Meanwhile, it was explained that electronic learning (e-learning) is learning that utilizes information packages based on information and communication technology for the benefit of learning that can be accessed by students anytime and anywhere (Permendikbud No 109 of 2013, 2013).Some of the characteristics of distance learning as regulated in Permendikbud No. 109 of 2013 are: (1) it is open; (2) independent study; (3) study thoroughly; (4) using information and communication technology; (5) using other educational technologies; and (6) in the form of university integrated learning. The principles in implementing distance learning are: (1) there is a separation between educators and students across space and time so that more emphasis is placed on independent learning; (2) technology-based learning interactions using various technological learning resources and other media; (3) systematically organized in one organization according to the applicable regulations; and (4) limited face-to-face meetings are possible.

Based on the definition of key term explained earlier, online teaching is defined as teaching carried out not physically face to face between students and lecturer, rather by the use of any internet platform in distance. Online teaching has the meaning of teaching carried out with online electronic media. The main requirement of online electronic media is connected to internet. Therefore, teaching that uses electronic media connected to the internet is referred to as online teaching.

Digital native lecturers are defined as lecturers born in the era of knowing the growth of technology and very familiar and skilled of operating any technological media of teaching (in this research, for those lecturers born after 1980). Digital immigrant lecturers are lecturers born in the era when the technology was not yet grown and popular and they still maintain to use conventional media of teaching (those lecturers born before 1980). The emergence of cellphones and internet in the 2000s was a time when people born in 1980 and above were still teenagers/ studying at a college/and not yet working, so they were used to using technology before they were of working age. Meanwhile, people born under 1980 had got a job and they were "forced" to adapt to technology. When they were comfortable with manual work without technology, they felt hard to shift using technology. When teachers were comfortable teaching with handouts/ books/ hardcopy, they had to adapt to use some applications on computer to provide material from the internet such as e-books, and others.

The digital native generation is generally used to technological developments, so they quickly adapt and feel comfortable using digital tools. The digital immigrant generation takes more time to

understand in using it. They tend to avoid/ reluctant to use modern technology, for example when they are comfortable with a teaching method such as using books/hardcopy; they tend to be reluctant to try new things that require thinking/adaptation to technology.

This study is a descriptive qualitative research because the emphasis is on using the main data, namely depth-interviews with respondents: lecturers of UIN Malang, while the second/supplementary data uses a questionnaire with respondents (lecturers of UIN Malang) and interviews with students to cross-check the situation of online class conditions as described by the lecturers as respondents. All of these data were investigated to search responses to the research questions: 1) How is digital native lecturer different from digital immigrant lecturer in the stage of implementation in teaching online courses for higher education student? (Their perception toward teaching online course, what platform they use for teaching online course, How they use the platform to implement and evaluate the online course.) 2) How is digital native lecturer different from digital immigrant lecturer in the stage of obstacles in teaching online courses for higher education student? 3) How is digital native lecturer different from digital immigrant lecturer in the stage of overcoming obstacles in teaching online courses for higher education student?

From the total respondent population of UIN Malang lecturers, the researchers managed to take representative samples (subjects) that actually provide complete data; 21 representative respondents (mixed male and female lecturers and mixed born before and after 1980): UIN lecturers across different departments and 12 representative respondents: UIN students across different departments.

Mostly (80%) of all lecturers have positive perception toward online teaching; merely 5 (mixed male and female lecturers) out of 21 lecturers who have negative perceptions and those are only digital immigrant lecturers (born before 1980) from different departments. Only few digital immigrant lecturers have negative perception toward online teaching. They are familiar and comfortable with offline teaching in the classroom because in class they can directly interact with conventional learning, use books/hardcopy to explain material, ask students to read a lot of books and not e-books. They are not used to using technology such as e-books, searching materials from internet, but they have mastered the material and just need to convey it directly to students. With offline teaching, they can discuss directly with students, monitor the development of students' understanding while providing advice/moral education as if they are parents to their children. They like telling stories and sharing experiences while discussing the lesson.

During pandemic, lecturers must carry out online teaching even though by merely utilizing several technology platforms they are comfortable with, such as zoom, WAG, and email. They are reluctant to think a little hard to learn a rather complicated platform such as e-learning provided by campus and also various platforms that are often utilized by digital native lecturers. This is coupled with the constraints of the internet network which often takes up time and interferes with online teaching. They explain the material via zoom, ask students to submit assignments via email.

There is no disparity (no significant difference) between digital immigrant lecturers and digital native lecturers in terms of obstacles they face in online teaching as well as in solving the obstacles. Either solution can be better among the others. Both digital native and immigrant lecturers for 2 years undergo online teaching, from semester to semester, they have been able to adapt to provide better online teaching. They tend to shift from negative perception to positive perception. They began to ensure the smooth internet network of lecturers and students, preparing good online teaching materials (good lesson plans) by utilizing the appropriate variety of teaching platforms. They try to provide fun learning with a variety of media and non-monotonous learning materials such as video conferencing, etc. Also, they provide feedback on student assignments. To ensure the reliability of students' abilities, they use google forms and other forms of online tests regularly.

Indeed, the presence of teachers in offline classes cannot be replaced by technology because we realize that the teacher's job is not just to explain the material (transferring knowledge) nor just a facilitator, but his role is to educate students' morals (affective education). They are used to teaching while giving motivation to learn, motivation to behave and do good in life. They tell stories, share personal experiences to motivate students.

On the other hand, after 2 years of the pandemic, and now is the time for them to undergo offline teaching, it turns out that they are not completely free from not using technology in teaching, such as the use of e-learning, google forms and other platforms which are very helpful in accelerating and optimizing the lesson, feedback on student work because from internet there are various teaching media

and also up-to-date knowledge. Thus, UIN Malang still allows 30% out of 100% meetings in a semester for online teaching.

Ana (2020) and Ali (2020) reveal that good preparation such as readiness in using supporting devices, is very much needed in implementing online learning so that lecture activities can run effectively. Furthermore, Ali (2020) concluded that resource readiness, staff readiness, self-confidence, accessibility and student motivation play an important function in realizing integrated and information technology-based learning. Expectedly, the importance of evaluation regarding online learning preparation is both from the educator and from the student side. It is because online lectures that are implemented in the midst of the Covid-19 pandemic are generally still difficult to carry out for students with low technology literacy. Furthermore, the importance of motivation in the learning process, teaching materials, implementation, and evaluation of problems still become challenges faced by educators and students in order to increase understanding in online learning.

Conclusions.

In order to stop the spread of COVID-19, online learning policies are enforced as a solution to replace face-to-face learning in tertiary institutions. Certainly, during its implementation, many obstacles were experienced by students and lecturers. The results of this study indicate that both students and lecturers have good readiness to face online lectures because most of them already have and are able to use supporting digital devices. Furthermore, it can be concluded that while attending lectures online, students experience several obstacles, including feeling stressed and limited social interaction. In addition, students also find it difficult to concentrate when studying online and feel burdened with coursework. Coupled with unstable internet network constraints and wasteful use of internet quotas, online student lecture activities are ineffective. Even though students experience various obstacles while attending online lectures, they also feel the positive impact, one of which is having more free time, so they have more time for their families, to rest and to do their hobbies. While the main obstacle faced by lecturers is the lack of interaction with students so that lectures are less effective.

This study provides insight on the practice of online teaching by both digital native and digital immigrant lecturers in higher education, then provides insight on the obstacles and strategies for solving them. Mostly (80%) of all lecturers have positive perception toward online teaching; merely 5 (mixed male and female lecturers) out of 21 lecturers who have negative perceptions and those are only digital immigrant lecturers (born before 1980) from different departments. Only few digital immigrant lecturers have negative perception toward online teaching. No disparity (no significant difference) between digital immigrant lecturers and digital native lecturers in terms of obstacles they face in online teaching as well as in solving the obstacles.

Suggestions.

The present study may contribute to some sides to consider the following aspects:

1) Considering that there are many positive things in the use of technology in online teaching; in this case technology can optimize the quality of teaching, this can be the basis for UIN Malang or other universities broadly to make policies about the percentage of online teaching in the post-pandemic era with applicable terms and conditions.

2) With background insight and the gap in technology literacy between digital native and digital immigrant lecturers, the campus needs to routinely provide training on the use of various technology-based platforms that support the optimization of teaching.

3) The complexity of the use and application of e-learning needs to be more simplified so that all can use it optimally and comfortably.

4) Considering that there are often internet/campus Wi-Fi disturbances, the quota and speed of the campus Wi-Fi need to be optimized.

5) This research serves as the basis for future research on teaching hybrid learning that combines online and offline learning.

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