Students' Perception on Using Eldiru as Asynchronous Learning Media

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Abstract

Pandemic condition due to Covid-19 disease pushes a new trend in teaching learning activity. It forces all levels of education implementing online learning platforms. Online learning platform gives freedom for students to learn autonomously. There are many online learning platforms available in this pandemic condition. One of the online learning platforms is eLDirU (e-Learning Jenderal Soedirman University). eLDirU is an online learning platform developed by Jenderal Soedirman University. It functions as a digital literacy learning innovation for native digital generation. In eLDirU, students and lecturers can interact in many activities provided in it. Students utilize eLDirU as synchronous and asynchronous learning media. This study observes students' perception on using eLDirU as asynchronous learning media. 66 students worked as the subject of this study. 66 feedbacks were collected from students' answers on questionnaires. The result of the questionnaire showed that eLDirU as asynchronous leaning media was proven to be helpful for the students in learning process. Students had a chance to explore themselves more in eLDirU. It also made them more active during learning process because lecturers facilitated the learning process by uploading related materials, videos, and other learning sources in it. Students also found no difficulties in accessing eLDirU, although they stayed in distant area. It might make them enjoy learning on eLDirU. The second result pointed out the use of eLDirU as asynchronous learning media. Students preferred using eLDirU when it came to asynchronous learning. In happened because they could explore their learning sources more with the help of eLDirU. But, for synchronous learning, the use of other learning content management system, such as Zoom meeting and Google Meet, would be students' top preference. It might ease students' understanding on the topic better.

Keywords: asynchronous learning media; eLDirU; learning media; elearning

A. Introduction

Method Pandemic condition due to Covid-19 disease makes a rapid change in all aspects in life. One of the aspects affected is education aspect. This condition pushes a new trend in teaching learning activity. It forces all levels of education implementing online learning platforms. Social media, such as WhatsApp and YouTube are also utilized during the pandemic condition. To deal with this condition, higher education tries to have a new innovation and develops their current online learning platform. Some universities already have their own online learning platform, but it is not put into top consideration for the teaching learning process. This pandemic condition urges the students, lecturers, and universities to utilize the e-learning into maximum use. Moreover, online learning platform gives freedom for students to learn autonomously. It is also strengthened with the application of the Act of the Minister of Education and Culture No. 109 Year 2013 which aims to provide higher educational services to society who cannot study directly. The Directorate General of Higher Education (DIKTI) has a strong belief that by implementing e-learning in the teaching learning process, number of Indonesia university students is going to increase rapidly. Numerous studies report positive outcome of implementation of online learning, in which it provides students with "friendly" environment which reduces anxiety or fear in making mistakes in front of teacher or classmates; moreover, students are able to study at their own pace which are suitable to students' own abilities. One states that the online learning platforms are used as supplementary equipment to promote autonomous learning (Cakrawati, 2017).

There are many online learning platforms provided by universities in this pandemic condition. One of the online learning platforms is eLDirU (e-Learning Jenderal Soedirman University). eLDirU is an online learning platform developed by Jenderal Soedirman University. It functions as a digital literacy learning innovation for native digital generation. On eLDirU, students and lecturers can interact in many activities provided

in it. Students utilize eLDirU as synchronous and asynchronous learning media. Synchronous learning means that both students and lecturer set a scheduled direct online learning. The synchronous way lets students and lecturer interact directly on virtual media as if they are in real condition in classroom. While, asynchronous learning means that the students make the most of the themselves by an independent online learning, in which it is not scheduled, and the content is available on the learning media. Asynchronous learning lets students explore themselves more in their autonomous learning. Regarding the difference between synchronous and asynchronous learnings, a question comes up as the focus of this research, i.e., "How is students' perception on using eLDirU as asynchronous learning media?" The objective of the research is to observe students' perception on using eLDirU as asynchronous learning media.

Covid-19 has changed the way of life, in many sectors of life such as finance, health, trade and education. To avoid increasing cases, the Minister of Education and Culture made a policy regarding the online teaching and learning process (Kemendikbud,2020) to find the suitable methods of teaching during the pandemic.

The policy and development of online learning

Before discussing online learning policy, it is a good idea to discuss a term that existed before the pandemic, namely remote learning (distance learning). in regulation no 109 of 2013 explains that distance learning is a lecture policy where the teaching and learning process is carried out remotely through the use of various media of communication. While online learning or known as e-learning is teaching and learning process that uses technology, information and communication warfare and networks that provide flexibility for students to learn anytime, anywhere and with anyone (Kemendikbud, 2020). Based on two definitions above we can conclude that online learning or remote learning has the same spectrum of

learning. Both are based on information and communication technology and now those terms are gathered into one namely online remote learning (Pembelajaran Jarak Jauh dalam Jaringan or PJJ)

Since the COVID-19 pandemic entered Indonesia and the government decided to issue an online learning policy, since then the rules regarding online learning in the pandemic era have been enforced. The regulation is the Circular of the Secretary General of the Ministry of Education and Culture number 15 of 2020 regarding Guidelines for Organizing Learning from Home During the Covid 19 Period. (Kemendikbud, 2020).

There are several rules (Kemendikbud, 2020) that need to be underlined in online learning in this Covid-19 era :(1) learning methods may be carried out in two ways, first is online learning, using gadgets and laptops through several portals, platforms and online learning applications. Second is offline learning, using television, radio, self-study modules and worksheets, printed teaching materials, teaching aids and learning media from objects in the surrounding environment. In the context of higher education, taking into account the diversity of students' background and condition and also the demands for autonomous learning, online learning is widely chosen by universities in Indonesia. (2) Prioritizing positive interaction and communication patterns between lecturers and students. (3) Activities and assignments during online learning may vary according to individual interests and conditions, including considering the gap in access to facilities (4) The learning materials are in accordance with level of education, cultural context, character and type of specificity of students. (5) Learning can be focused on life skills education, providing a meaningful learning experience without being burdened with the demands of completing all curriculum achievements. From the description above, we can conclude that online learning in this pandemic era is learning that considers the ease of communication and access to education for all.

When we talk about access to education in online learning, we should look at the development of distance education from the last few decades.

By knowing the development of online learning, we will know what kind of systems and media we can develop at this time. Online learning is developing since 1900s. Power (2008) explained how the development of distance learning has undergone many changes to date.
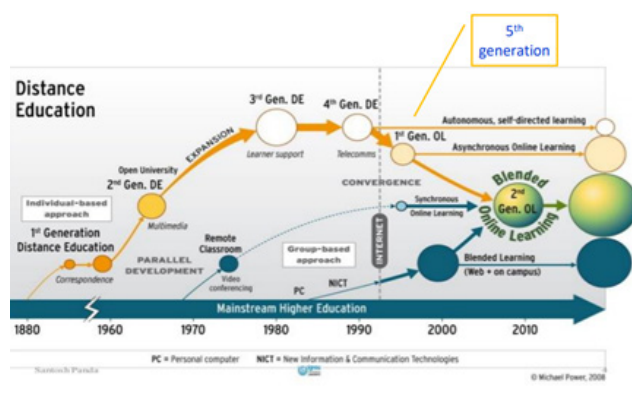

Figure 1. The development of distance Education (Power,2008)

The development of distance education began in 1880, namely the first generation of distance education. Between 1880 and 1960 was the era of correspondence or known as the individual-based approach. The 1960s and 1970s were the second generation or the era of multimedia and the emergence of open universities. From 1970 to 1980 there was an expansion to the third generation, people used learner support in the form of video conferencing. Then in 1980 to 1990 was the fourth generation era through telecommunication media and in 1990 the internet also appeared and became well known for the first time as online learning (can be called fifth generation of distance education or 1st generation of online learning). When online learning through the internet became known, some terms in online learning became popular such as autonomous self-directed learning, synchronous and asynchronous learning. Major changes occurred in 2000 until before the pandemic happened where the term blended learning emerged, which is an integrated learning system between web learning and on campus learning.
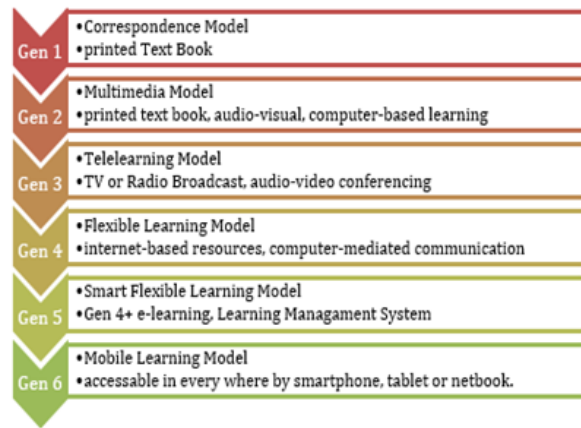
Figure 2. Distance Learning Model (Kementrian RISTEKDIKTI, 2016)

In the current pandemic era, blended learning, combination between web and on campus learning, is a little difficult to be applied right now because the government is trying to focus on limiting large-scale activities to suppress the spread of the virus. So that full online learning is the only solution in the midst of a pandemic.

Long before the pandemic came, the development of online learning models had progressed a lot, starting from the correspondence model, multimedia model, telelearning model, flexible learning model, smart flexible, learning model and the last generation is the mobile learning model. In the latest generation of online learning models, several experts have developed learning models that are easily accessible anywhere and with easy-to-handle tools such as smartphones, tablets, and netbooks. Some mobile learning system are google classrom, edmodo, quipper and many others. This is what the government and researchers hope today where learning technology should be designed that is easily accessible, comfortable, flexible and does not require a large internet quota (Saragih, 2020)

Mobile online learning is currently believed to be a cheap and easy medium to gain knowledge in the pandemic era. Although it is undeniable

that some students in several locations also complained about the poor internet network (Anwar & Wahid, 2021). Asynchronous learning can also be used as a solution to overcome an unstable internet network so students can access knowledge anywhere and anytime when they get internet connection better (not at the lecturer's scheduled time)

Synchronous and asynchronous learning

The condition of inequality in student online learning facilities is one of the sources of online learning unfriendliness in Indonesia. Some lecturers believe online learning through video conferencing is the best in conveying knowledge and for maintaining communication between lecturers and students. We need to pay attention to the obstacles experienced by students in accessing online learning media. As educators, we should be able to master three kinds of knowledge; Pedagogical knowledge, technological knowledge and content knowledge (Koehler & Mishra, 2006) in using online learning media. The use of friendly learning media can be used optimally in order to achieve learning outcomes.

Many lecturers use video conferencing, many students also complain about poor internet network conditions. Then if the lecturer always uses video conferencing at every meeting, can knowledge be conveyed to students who have limited internet connections? Can students who were interrupted by an internet connection able to repeat the material previously? Can interaction and communication between lecturers and students also be achieved? That is one of the disadvantages of Synchronous learning.

Online learning can be defined as a flexible learning experience that can be delivered through the use of information technology and computers so it can be accessed anytime, anywhere and by anyone. There are two different online learning models; synchronous and asynchronous.

	Synchronous	*Asynchronous*
Time study	Real time	Without real time interaction
	surfing the internet, accessing website to obtain information	stand-alone courseware, downloaded materials for study
Media of comm unicat ion	Chatroom, conferencing, net meeting	by email, no real time communication, Students are able to put their comment in column provided

Table 1. Difference of synchronous and asynchronous (Hadiningrum et al., 2020)

With some of the weaknesses of the synchronous learning model in Indonesia, it is necessary for us to delve deeper into the asynchronous learning model. Synchronous learning means having two parties talking or working together at the same time in their online learning media. They agree when to start and finish a class. Usually, real-time conversations are accompanied by instant responses. Meanwhile, asynchronous learning is an online learning model without real-time interaction. Lecturers are able to set the class before the class is started.

Lecturers can arrange all meetings before the class is started. Each meeting can be filled by the lecturer with any material needed to achieve learning outcomes. Students can also download the material provided and respond in the comment's column provided. The most important thing is that students' autonomous learning can increase because this media does not force students to meet in one time. They can open anytime and anywhere.

The features of eLDirU

eLDirU is a well-developed online learning media during the pandemic condition developed by Jenderal Soedirman University (Unsoed). The use of eLDirU as asynchronous learning media is preferably by the students because it has many features that can let them explore more

and become more active in autonomous learning. eLDirU this year 2021, already has complete features as a Learning Management System (LMS). The following features are contained in eLDirU:

eLDirU can be accessed via computers and smartphones. If it's a computer, the user just enters the browser menu and enters the site: https://eldiru.unsoed.ac.id. If using a smartphone, the user should install the Mobile Moodle application on the Playstore. With the Mobile Moodle application, the interface is easier. The task notifications, quizzes and attendance are complete and only requires one login.
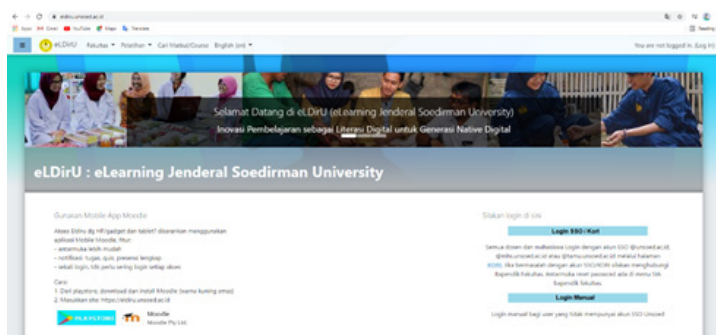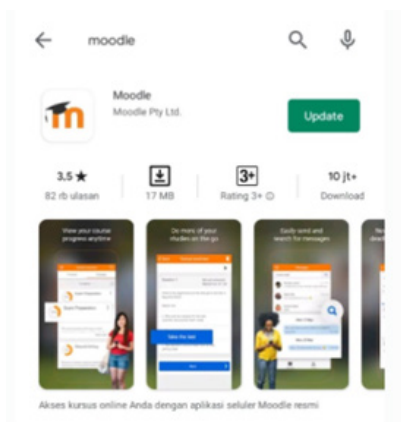

Figure 3. Display of eLDirU on computer

Figure 4. Display of Moodle Mobile Application (eLDirU) in playstore

On the homepage, users can see the dashboard menu, calendar, badges, all courses and users who are currently online. On the home menu there is also a menu for the Indonesian Spada registration form, which is a kind of Massive Online Learning System. Spada Indonesia is an abbreviation of the Indonesian Online Learning system developed by the Directorate General of Learning and Student Affairs of the Ministry of Research, Technology and Higher Education. It used to be able to increase equitable access to higher education and increase the quality of higher education learning in Indonesia.
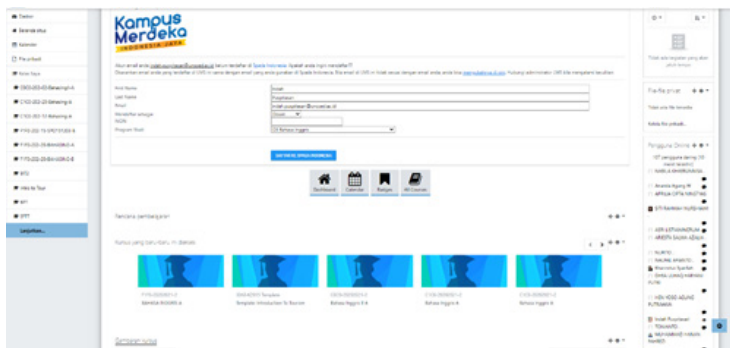

Figure 5. Main Display

Going to a course or class, lecturers can arrange lecture meetings and upload materials to be taught. The menus in the class are quite complete such as: Assignment, attendance, Bigbluebutton (video conferencing), Book, Chat, Choice, Database, External Tool, Feedback, Files, folders, Forum (Chat), Glossary, Google Meet for Moodle, Group self Selection, H5P, IMS Content Package, Journal, Label, Lesson, Page, Peer Assessment, quiz, SCORM package, Survey, URL, Wiki and Workshop.
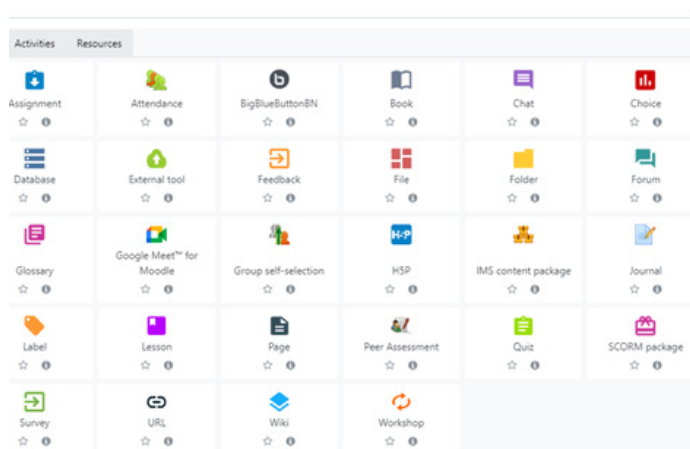
Figure 6. Menu Display in the course

In this large menu, there are more detailed menu, such as to set the day, date, time, type of question, assessment and so on. Those detailed menus are very helpful for the users. Previous research stated that the use of eLDirU is very effective in some parts. The effectiveness of Eldiru was measured through feactures which the lecturers and students like the most such as the use of menu URL which are able to share any materials from internet, online quiz and forum (Agustina et al., 2015). Other finding also explained that menu quiz and assignment in eLDirU have been developed well. There is a system of quiz and assignment monitoring and filtering, so lecturers are easy to check them (Firmansyah et al., 2021).

B. Method

This study was a descriptive study which describes the students' perception on using eLDirU as asynchronous learning media. The subject of this study was 66 students from English Department of Unsoed. They were selected as the subject of the study by using random sampling technique. All the subjects in the study had the same experience on utilizing eLDirU and other online learning platforms. It was expected that the subjects would give an objective answer on the use of eLDirU.

The students were asked to fill the questionnaires on Google Form. There were 5 questions on the questionnaires regarding the use of eLDirU as asynchronous learning media. Google Form was used as the helping media to reach distant students in short time. The 66 feedbacks from the students were analyzed as the data of the study.

C. Findings and Discussion

After analyzing the result of students' questionnaires, the finding came up. The finding's scope was to figure out the students' perception on using eLDirU as asynchronous learning media. The result of questionnaires was as follows:

Statements	Responses	
	Yes	*No*
1 The use of eLDirU as asynchronous learning media helps students in the teaching learning process	65	1
2 The use of eLDirU as asynchronous learning media gives students chance to explore themselves more	53	13
3 The use of eLDirU as asynchronous learning media makes students more active during teaching learning process	44	22
4 I have no problem in accessing eLDirU	56	10
5 The use of eLDirU as asynchronous learning media is preferable compared to other synchronous learning media	30	36

Table 2. Students' Perception on eLDirU

In details, the students' perception was elaborated in the finding. The finding consisted of the percentage of some statements. i.e., the use of eLDirU to help students during teaching learning process, the use of eLDirU to give students chance to explore themselves more, the use of eLDirU to make students more active during teaching learning process, eLDirU accessibility, and the use of eLDirU compared to other synchronous learning media.

The Use of eLDirU as Asynchronous Learning Media Helped Students in the Teaching Learning Process

The first analysis was the analysis on the use of eLDirU in helping students in the teaching learning process. The analysis showed that almost all students, in this case was 65 students (98,5%), felt that eLDirU did help them a lot during teaching learning process. They found it helpful because eLDirU had many features on it that could support the learning process. eLDirU had attendance section which had been synchronized with Unsoed academic information system, assignment section, BigBlueButtonBN which functioned similar to Google Meet, external tool section, glossary dan journal sections, and many more. Those features make eLDirU helpful for students.
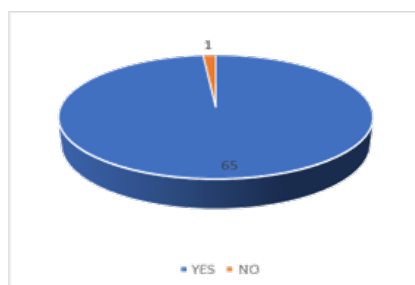

Figure 7. Analysis on eLDirU in Helping Students in Teaching Learning Process

The Use of eLDirU as Asynchronous Learning Media Gave Students Chance to Explore Themselves More

The second analysis was about analyzing the use of eLDirU in giving students chance to explore themselves more. This section was meant to observe the use of eLDirU in helping students work autonomously in their own pace. 53 students (80,3%) felt that eLDirU did give them chances to explore themselves more. Most students have a willing to explore their ability in the course because lecturers gave them a chance to do so by utilizing eLDirU. Students felt like they had freedom to learn on their own

pace by using any kinds of media to help them comprehend the material. Lecturers provided some other resources for students to learn more on eLDirU. It was hoped that the maximum use of eLDirU as asynchronous media helped students comprehend and develop themselves more so their hidden ability could come up and make a good result.
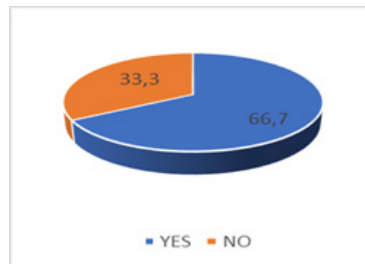

Figure 8. Analysis on eLDirU in Giving Students Chance to Explore Themselves

The Use of eLDirU as Aynchronous Learning Media Made Students More Active During Teaching Learning Process

Next analysis was analysis on the use of eLDirU to make students more active during teaching learning process. This analysis was related to students' activeness in the teaching learning process. In this analysis, the role of lecturers also played an important role. 44 students (66,7%) agreed that eLDirU made them become more active in the learning process. Lecturers helped the process by uploading related materials, videos, and other learning resources on eLDirU. It made students feel happy and could develop their knowledge and ability at the same time by making them active in learning and discovering new related topic.
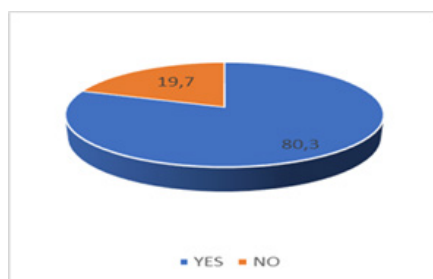
Figure 9. Analysis on eLDirU to Make Students More Active

eLDirU Accessibility

In talking about accessibility, it related to the ease of distant people in accessing the platform. It also happened in this analysis. This analysis related to the ease of distant students in accessing eLDirU. It was put in the analysis because this pandemic condition made the students learn form their homes, in which they lived in various areas, some even lived in distant areas from campus. There were 56 students (84,8%) stating that they had no much problem in accessing eLDirU. It could be said that most students found it easy to access eLDirU although they live in distant area. Moreover, they aldo found eLDirU handy because they could access it on their smartphone by downloading Moodle Mobile Applicaion in Playstore. These features made the students had no big problem in online learning. It showed that Unsoed as the developer of eLDirU had prepared its online learning platform well so the teaching learning process during this pandemic condition run smooth.
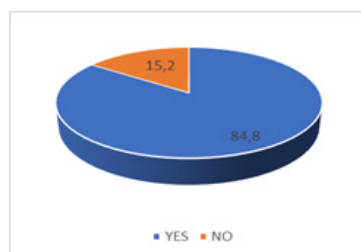

Figure 10. Analysis on eLDirU accessibility

The Use of eLDirU as Asynchronous Learning Media Compared to Other Synchronous Learning Media

Last analysis was on the use of eLDirU compared to other synchronous learning media. Before the utilization of online learning platform as asynchronous media, some synchronous learning media were used. One of the most widely-used synchronous learning media was Google Classroom. Some lecturers preferred to use Google Classroom to teach because they found it easy to use, but it showed some lack in feature. The lack was that it was not synchronized with other Unsoed's information system. Students might not find eLDirU as a preferred synchronous learning media because at first, it took a lot of time for students to learn to operate it, and it also had many features which students did not find it useful in each class. Students preferred using eLDiru when it came to asynchronous learning because they could explore their learning sources more. Moreover, eLDirU was synchronized with Unsoed's information system, such as attendance and assignment, so students found it helpful for the administration of their learning. But, for synchronous learning, the use of other learning content management system, such as Zoom meeting and Google Meet, would be students' top preference. It might ease students' understanding on the topic better.
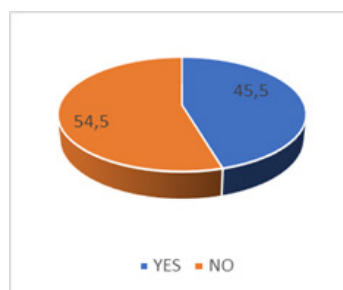

Figure 11. Analysis on the Use of eLDirU compared to other Synchronous Learning Media

D. Conclusion

eLDirU is a well-developed online learning media during the pandemic condition developed by Jenderal Soedirman University (Unsoed). The accessibility of eLDirU is good because it can reach students living in distant area. The use of eLDirU as asynchronous learning media is preferably by the students because it has many features that can let them explore more and become more active in autonomous learning. eLDiru is also synchronized with other Unsoed's information system so the students find it easy for the complete administration needed. But, for synchronous learning, students find other learning platform more helpful because the synchronous learning media may help them comprehend the topic better.

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