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Article

Evaluation of Online Learning on the Level of Understanding of Tadris IPA Students of IAIN Bengkulu Semester 5A in Biomolecule and Metabolism Courses

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ABSTRACT

This study aims to determine the level of understanding of science tadris students in semester 5A at IAIN Bengkulu in the biomolecule and metabolism course which is carried out in an online system. This research was conducted by giving online questionnaires/questionnaires to respondents. The type of questionnaire given is an open questionnaire, in which the respondent is free to fill in the answers according to their wishes. Based on the questionnaire, it was found that students had difficulty understanding biomolecule and Metaboism courses. The difficulty in understanding the material that has been provided online, which is deemed ineffective, this can have an effect on the low learning achievement of Tadris IPA 5A students at IAIN Bengkulu. For this reason, there is need for awareness from students to improve the learning process outside class hours, this aims to maximize student understanding of the materials and assignments given by the lecturer in order to maintain the stability of the value of each student.

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INTRODUCTION

On December 31, 2019, a similar case of unknown pneumonia appeared in Wuhan, China (Lee, 2020). his case was caused by the corona virus or what is known as COVID-19 (Corona Virus Desese-2019). The characteristic of this virus is a high speed of spread. Based on WHO data, it was found that COVID-19 has become a global pandemic with 4,534,0731 confirmed positive cases in 216 countries around the world (Update: 17-05-2020). The Corona virus has also been epidemic in Indonesia since early March until now November 12, 2020, there are 17,514 confirmed positive cases spread across 34 provinces and 415 districts / cities. The impact of the COVID-19 pandemic has changed various aspects of human life.

Since the declaration of the 2019 corona virus disease (Covid-19) as a national epidemic on March 11, 2020, learning models in higher education have begun to adapt, including through the online system. Online learning is carried out as a strategic choice in breaking the spread of the covid-19 outbreak in higher education. In his decision, the Minister of Religion emphasized that the implementation of education must consider health by prioritizing online education services (Amin, 2020). So online learning allows learning to be done without meeting physically and at a distance, (Henderson, 2003) by using good internet access, (Clark, R. C. & Mayer, 2003). This is relevant to preventing the spread of covid-19 through social distancing and physical distancing, (GTPPCovid-19, 2020).

Learning is anything that can carry information and knowledge in the interactions that take place between educators and students, (Arsyad, 2011). In learning, we must apply strategies in learning where the learning strategy is a method or method used by educators to students in the occurrence of changes in cognitive, affective, and motor aspects on an ongoing basis. Learning is at the core of the educational process. The quality of education describes the quality of learning. Improving the quality of education can be done through improving the quality of learning. Online learning and working from home for educators are changes that must be made by lecturers to keep teaching students. Distance education has the aim that the quality of education increases and the relevance of education and increases equitable access and expansion of education. Distance education, which is organized with good quality assurance and in accordance with the needs of stakeholders, is one of the mechanisms for expanding access to higher education. The Distance Learning Program (PBJJ) is an alternative currently used by every university to carry out the teaching and learning process even though it is not face-to-face. Changing the learning process from face-to-face to PBJJ is a decision that must be made by the university so that educational goals can be implemented effectively and efficiently. The university is a modern organization that must adapt to environmental changes. Universities in the midst of the COVID-19 pandemic must continue to carry out the teaching and learning process. by converting it to PBJJ. PBJJ is a challenge for every university to continue to carry out educational goals.

Based on this determination, the Ministry of Education and Culture (Kemendikbud) issued a Circular from the Minister of Education and Culture Number: 36962 / MPK.A / HK / 2020 dated 17 March 2020 concerning Online Learning and Working from Home in the Context of Preventing the Spread of Corona Virus Disease (COVID-19).

(Darmansyah, 2012), said the use of online learning systems is one of the efforts that can be made to overcome problems and make it easier for students to access lecture materials to communicate with each other and discuss online, as well as to obtain tutorial sharing assistance by lecturers available on online learning system media. In addition, the online learning system can optimize the interaction between lecturers and students through discussion forums contained in the media used. The Covid-19 pandemic took many things and then formed a new order. This pandemic is also like giving a new path to a new transformation in life.(Wekke, I. S., & Saleh, 2020). This also demands life to change in a fast period of time.

The demand for this transition has reached a wide range of sectors of life, so education is also inseparable from this current. That is what demands that policy officials as protectors and decision-makers on the continuity and order of life have issued policies related to the pandemic. Many countries have also taken the policy of closing schools as a step to save education from the dangers of the virus, including Indonesia. The closure of these educational institutions has led to policies of learning from home, teaching from home, or working from home. Everything is completely housed, which automatically changes the use of media or space from offline to online.

This policy of transitioning learning media to online learning which is carried out online then provides various kinds of problems in the world of education. The learning process from home is a new thing for some families in Indonesia, it is a big surprise especially for the productivity of parents who are usually busy with work outside the home. (Aji, 2020). Not only for families, but also have an impact on the psychological conditions of students who usually have direct eye contact but suddenly have to go online. This policy then causes problems both in terms of learning, skills, and the psychology of students. Not to mention the regional differences that cause additional problems related to connections or devices that will be used in the learning process.

The COVID-19 pandemic has an impact on many parties, this condition has penetrated the world of education, the central government to the regional level has provided policies to dismiss all educational institutions. This is done as an effort to prevent the spread of COVID-19. It is hoped that all educational institutions do not carry out activities as usual, this can minimize the spread of the COVID-19 disease. The same thing has been done by various countries affected by the COVID-19 disease. The lockdown or quarantine policy is carried out in an effort to reduce the interaction of many people who can provide access to the spread of the corona virus. The policies taken by many countries including Indonesia by closing all educational activities have made the government and related institutions have to present an alternative educational process for students and students who cannot carry out the educational process at educational institutions. This is supported by Circular Number 4 of 2020 concerning Implementation of Education Policies in an Emergency for the Spread of Coronavirus Disease (Covid-19) in PDF format signed by the Minister of Education and Culture Nadiem Makarim on March 24, 2020. The principles applied in the pandemic period policy COVID-19 is "the health and safety of students, educators, education personnel, families, and the community is a top priority in determining learning policies".

The government provides various learning applications that can be accessed and used by teachers and students. According to (Arsyad, 2011), online pursuit media or often referred to as e-learning is a medium to support education and not as a substitute medium for education. The process of e-learning as a distance learning media creates a new paradigm, namely the role of teachers who are more "facilitators" and students as "active participants" in the teaching and learning process. Therefore, teachers are required to create good teaching techniques, present interesting teaching materials, while students are required to actively participate in the learning process. Online pursuits are also often referred to as online learning or "online". The use of online learning systems is one effort that can be made to overcome problems and make it easier for students to access learning material. (Riyanda, A. R., Herlina, K., & Wicaksono, 2020) explained that some things that can be done during online learning are communicating and discussing online.

At this time technology disruption occurred in the world of education, face-to-face learning which was carried out 100 percent in schools, suddenly experienced a very drastic change. And, it is undeniable that more than 50 percent of students and students come from low and middle income communities. As a result of the Covid-19 pandemic, various policies were implemented to break the chain of spread of the Covid-19 virus in Indonesia. One of the efforts made by the government in Indonesia is by applying an appeal to the public to carry out physical distancing, namely an appeal to maintain distance between people, stay away from activities in all forms of crowds, associations, and avoid meetings that involve many people. This effort is aimed at the community so that it can be done to break the chain of spreading the Covid-19 pandemic that is currently happening.

The government implements a policy, namely Work From Home (WFH). This policy is an effort applied to the community in order to complete all work at home. Education in Indonesia has also become one of the areas affected by the covid-19 pandemic. With the

existence of restrictions on interaction, the Ministry of Education in Indonesia also issued a policy, namely by dismissing schools and replacing the Teaching and Learning Activities (KBM) process by using an online system.

Another problem with this online learning system is that access to information is constrained by signals which causes slow access to information. Students are sometimes left with information due to inadequate signals. As a result, they are late in collecting an assignment given by the teacher. Not to mention for teachers who check the many assignments that have been given to students, making gadget storage space even more limited. The application of online learning also makes educators think again, about the learning models and methods to be used. Initially a teacher has prepared a learning model that will be used, then must change the learning model.

Behind these problems and complaints, it turns out that there are also various lessons for education in Indonesia. Among them, students and teachers can master technology to support this online learning. In this era of increasingly sophisticated technological disruption, teachers and students are required to have abilities in the field of learning technology. Mastery of students and teachers of learning technology is very varied, a challenge for them. With the Work From Home (WFH) policy, it is able to force and accelerate them to master digital learning technology as a necessity for them. The demands of these needs enable them to find online media that can support as a substitute for direct learning in class, without reducing the quality of learning material and target achievement in learning. Various distance learning media were tried and used. Facilities that can be used as online learning media include e-learning, zoom applications, google classroom, youtube, and whatsapp social media. These facilities can be used optimally, as a medium in carrying out learning such as in class. By using this online media, students and teachers have indirectly mastered the ability to use and access technology.

After educators are able to master various online learning tools, it will create thoughts about more varied learning methods and models that have never been done by educators. For example, teachers make creative video content as teaching materials. In this case, the teacher is more persuasive because it makes students more interested in the material provided by the teacher through the creative video. Students will certainly be able to understand what is explained by the teacher through the creative videos made by the teacher. So that with the application of this learning model at home, students do not feel bored in participating in online learning.

The use of mobile technology has a major contribution in educational institutions, including the achievement of distance learning goals (Korucu, A. T., & Alkan, 2011). Various media can also be used to support the implementation of online learning. For example, virtual classes use Google Classroom, Edmodo, and Schoology services (Enriquez, 2014); (Sicat, 2015); (Iftakhar, 2016), and instant messaging apps like WhatsApp (So, 2016). Online learning can even be done through social media such as Facebook and Instagram (Kumar, V., & Nanda, 2018). Online learning connects students with learning resources (databases, experts / instructors, libraries) that are physically separated or even far apart but can communicate with each other, interact or collaborate (directly / synchronously and indirectly / asynchronously). Online learning is a form of distance learning that utilizes telecommunications and information technology, for example the internet, CD-ROOM (Molinda, 2005).

The use of technology in completing assignments for students can also lead to creativity among students in developing the knowledge they already have. With a variety of learning methods from the teacher, they can create a creative learning product that can develop thinking through their own analysis, without leaving the subject matter that has been conveyed by the teacher. The existence of the Covid-19 pandemic also provides another

lesson. Learning that is carried out at home, can make it easier for parents to directly monitor or supervise the development of children's learning. Parents find it easier to guide and supervise children's learning at home. This will lead to more intensive communication and will lead to a closer relationship between children and parents. Parents can provide direct guidance to children regarding learning material that is not understood by children. Where actually parents are the first institution in children's education. In online learning activities provided by the teacher, parents can monitor the extent of their children's competence and abilities. Then the unclearness of the material provided by the teacher makes communication between parents and children more well-established. Parents can help with material difficulties faced by children.

In the learning process, evaluation is a very important part. Evaluation is a systematic process to determine goals or make decisions to what extent teaching goals have been achieved by students in learning, (Gronlund, 1975). The current pandemic condition requires educators, in this case, teachers to innovate in changing face-to-face learning patterns into face-to-face learning patterns. (Zhafira, N. H., Ertika, Y., 2020), explained that there are other learning models that can be used by teaching staff as a medium for delivering knowledge, namely online learning and mixed learning (a combination of two learning methods, namely face-to-face and online learning). Online learning methods do not require students to attend class. Students can access learning through internet media. (Learning & Disabilities), 1992) statement Identification of learning difficulties can be done by looking at aspects specific of the ability to hear, speak, reading, writing, reasoning, or math the progress of learning in students.

Barriers, Solutions and Expectations for Online Learning During the Covid-19 Pandemic Lecturers have difficulty understanding and using hearing, speaking, reading, writing, thinking or math skills. Online or online electronic learning and some call it online learning is a learning activity that utilizes networks (internet, LAN, WAN) as a method of delivery, interaction and facilities and is supported by various other forms of learning services (Waryanto, 2006). Online learning is useful for learning activities in class (classroom instruction), namely as: (1) Supplement, as a supplement if students have the freedom to choose, whether to use online learning material or not, in this case there is no obligation for students to access learning material on line. (2) Complement, as a complement if the online learning material is programmed to complement the learning material received by students in the classroom. Online learning materials are programmed to become enrichment or remedial materials for students in participating in conventional learning activities. (3) Substitution, as a substitute if the online learning material is programmed to replace the learning material received by students in the class (Soekartawi, 2019). According to (Hanum, 2013), Online learning or e-learning is a form of learning model that is facilitated and supported by the use of information and communication technology. E-learning can be defined as a form of information technology applied in education in the form of cyberspace. The term e-learning is more appropriately intended as an attempt to transform existing learning in schools or colleges into a digital form that is bridged by internet technology. (Hanum, 2013), states that "e-learning is a new form of pedagogy for learning in the 21st century. E-teachers are e-learning instructional designers, facilitators of interaction, and subject matter experts ". E-learning is an open source learning system, a learning system that uses web applications that can be run and accessed with a web browser (Wulandari & Rahayu, 2010). E-learning is an education system that uses electronic applications to support teaching and learning using other computer network media.

(Warkintin & Mulyadi, 2019) explained that education is a system that develops a broad enough mission related to physical development, skills, thoughts, feelings, abilities, social to issues of belief or faith. So that whatever obstacles or obstacles to education still go well. The

obstacle in this case is the obstacle experienced by teachers in the midst of the Covid-19 condition, learning is carried out online and cannot be carried out face-to-face in class. This condition requires educators to innovate in the learning process, especially learning through online (in the network).

The solution taken during the pandemic is to find a solution using network-based learning. Educators are required to be innovative in using online learning models. This is in line with the opinion of (Tjandra, 2020) that educators only facilitate class libraries, modules, text books, and supporting books, and most importantly internet access, as well as providing several computers for students who do not carry laptops. The form of e-learning (electronic-based learning) will continue to exist and continue to develop. As computer ownership is growing rapidly in the world, e-learning is becoming increasingly developed and accessible. Internet connection speeds are increasing, and with it, opportunities for more multimedia training methods are emerging. The hope in learning with the online model is to become a solution that can help learning in the midst of the COVID-19 pandemic.

In addition there is the impact of online learning that is felt by parents of students. Starting from the impact of additional costs for providing facilities, whether in the form of hardware such as computers or cellphones or internet network support devices in the form of quota packages. That way, the family expenses will automatically increase. Furthermore, parents are forced to adapt and provide learning assistance for their children, so they have to spend time when these children learn online, so that their daily activities or work will be affected as well. However, behind that there is another obstacle found, namely the ability of parents to provide online education facilities (Obiakor, T., & Adeniran, 2020) those who only work as farmers and are not technologically literate will certainly find it difficult to mentor students.

The learning process of the biochemistry and metabolism course in semester 5A at IAIN Bengkulu can also run well if students exchange understanding in discussing the material presented. The virtue of online learning is that it can be done anywhere and anytime. Students don't need to spend hours studying in class. The second priority, biochemistry study materials can be accessed at any time with the sophistication of technology. These biochemistry learning materials can be downloaded and can be studied at any time without a time limit.

This biomolecule and metabolism course is also one of the main subjects that must be studied by undergraduate students of the Science Tadris Study Program at IAIN Bengkulu. Biomolecules and metabolism are courses that study the structure and function of cellular components, such as proteins, carbohydrates, lipids, nucleic acids, and other biomolecules. Biomolecule and metabolism courses contain material on the chemistry of enzyme-mediated reactions and the properties of proteins. Students are expected to be able to understand the material both in terms of lecturers' explanations using applications, videos provided by lecturers, and by learning material that is difficult to understand on their own.

Internet connection is a determinant of the success of today's learning. An internet connection that is disrupted when learning takes place will become an obstacle to the interaction process between students and lecturers. In addition, the constraint of online learning for biomolecule and metabolism courses is that the activity of the individual is limited, even though the online system is flexible, with any time and anywhere. However, on the other hand, there are other activities, both lecturers and students, when they are at their respective homes which create boundaries in questioning material that they feel do not understand. Therefore, the purpose of this research is to evaluate the learning that is carried out online against students of the 5A semester Science Study Program at IAIN Bengkulu in understanding the subject matter, especially biomolecule and metabolism material which is carried out online.

METHODS

The research method used in this research is qualitative methods. Where the qualitative research method is a research method based on the post-positivism philosophy, used to examine the condition of a natural object, (as opposed to an experiment) where the researcher is the key instrument, the sampling of data sources is done purposively and snowball, the collection technique is tri- formulation (combined), data analysis is inductive or qualitative, and the results of qualitative research emphasize the meaning more than generalization, (Sugiyono, 2011). In this study, researchers used data collection techniques in the form of questionnaires and interviews

The questionnaire is a list of written questions given to the subject who wants to be researched to collect the information the researcher needs (Kusuma, 2011).

The interview used in this study was a semi-structured interview. According to (Sugiyono, 2017), states that semi-structured interviews are used to obtain a more open problem, where the informants are asked for their opinions, and their ideas are related to the problem. With interviews, researchers will find out more in-depth things about informants in interpreting situations and phenomena that occur, where these cannot be found through observation (Maryono, M., Budiono, H., & Okha, 2018).

The research subjects were students of the 5A semester IPA Tadris Study Program at IAIN Bengkulu who had carried out online learning, and were grouped based on the response of the research subject. In obtaining 19 research subjects, data collection was carried out by giving a questionnaire (questionnaire). The aspects that are asked in the questionnaire (questionnaire) are: (1) Student responses regarding the effectiveness of online learning; (2) Student responses regarding understanding material in online learning; (3) Implementation of online learning in breaking the chain of the spread of Covid-19 in tertiary institutions.

This research was conducted by providing a questionnaire (questionnaire) in data collection. (Sugiyono, 2011), The questionnaire is a data collection technique which is done by giving a set of questions or written statements to the respondent to be answered. In this study, a questionnaire was given to students who were used as the control class and the experimental class to determine the level of understanding of students in following the learning process before and after the learning method was applied.

Evaluation of online learning data in understanding biomolecule and metabolism courses can be obtained using questionnaires and interviews. Where the type of questionnaire given is an open questionnaire, that is, respondents have the freedom to provide answers or responses. While the type of interview used is a structured interview, which is to obtain a more open problem, in which the interview activity informants use comments, and their ideas are related to the problem. The questionnaire and interviews given contain 5 questions. These questionnaires and interviews were given to Tadris IPA semester 5A students of class 2018 online to respondents on November 17, 2020. This research was conducted for 1 week from the time the questionnaires and interviews were given to respondents.

RESULTS AND DISCUSSION

Evaluation of online learning data in understanding biomolecule and metabolism courses can be obtained using questionnaires and interviews. Where the type of questionnaire given is an open questionnaire, that is, respondents have the freedom to provide answers or responses. While the type of interview used is a structured interview, which is to obtain a more open problem, in which the interview activity informants use comments, and their ideas are related to the problem. The questionnaire and interviews given contain 5 questions.

In the following, the researcher describes the questionnaire and interview grids used in compiling the questions in the questionnaire and interview.

Table 1. Question grid

Data source	Title	Data Category Relates to online learning
College student	Evaluation of online learning on the level of understanding of Tadris IPA students of IAIN Bengkulu semester 5A in Biomolecule and Metabolism courses	1. Interest in learning in online learning 2. Effectiveness in online learning 3. Understanding in online learning

Furthermore, the researcher developed a questionnaire and interview instrument that would be asked of the data source, namely students in online learning. The following is a draft of the questions that have been included in the instrument:

Table 2. Draft questionnaire and interview questions

No	Question	Description
1	Has online learning influenced your interest in studying biomolecule and metabolism courses. Give reasons?	The informant will answer this question with a short answer
2	Is it effective to study biomolecule and metabolism courses online, if yes / no, give reasons?	The informant will answer this question with a short answer
3	Are all of these learning activities carried out well (structured, on schedule, coordinated) if yes / no, give reasons?	The informant will answer this question with a short answer
4	Is the biomolecular and metabolic material online easily understood, if yes / no give reasons?	The informant will answer this question with a short answer
5	What obstacles are faced in online learning of biomolecule and metabolism courses?	The informant will answer this question with a short answer

From the two data collection techniques above, namely questionnaires and interviews, it can be concluded that the grids used are the same in compiling the questions that will be asked to the data source, namely students who are learning online.

Table 3. Research Result

No	Respondents	Understanding the material Biomolecules and metabolism	
		Positive	Negative
1	Respondents 1	-	-
2	Respondent 2	-	✓
3	Respondents 3	-	-
4	Respondents 4	-	✓
5	Respondents 5	✓	-
6	Respondents 6	-	✓
7	Respondents 7	-	✓
8	Respondents 8	-	✓
9	Respondents 9	-	✓
10	Respondents 10	-	✓

No	Respondents	Understanding the material Biomolecules and metabolism	
		Positive	Negative
11	Respondents 11	-	✓
12	Respondents 12	-	✓
13	Respondents 13	-	✓
14	Respondents 14	-	✓
15	Respondents 15	-	-
16	Respondents 16	-	✓
17	Respondents 17	✓	-
18	Respondents 18	-	✓
19	Respondents 19	-	-

Information:

Positive = easy to understand biomolecule and metabolism subject matter

Negative = difficult to understand biomolecule and metabolism subject matter

It is known that 19 Tadris IPA students in semester 5A 2018 were made respondents.

Based on the questionnaire there were 15 respondents who filled out the questionnaire and the remaining 4 respondents did not fill out the questionnaire. Respondents' answers and responses were 2 respondents who easily understood the subjects of biomolecules and metabolism and 12 respondents had difficulty understanding these subjects. Many of them argue that online learning makes it difficult to understand the biomolecular and metabolic material presented and in questioning the limited material they do not understand. Where a lot of material about Biomolecules and Metabolism uses a lot of chemical reactions in this case.

In addition, based on the interview, there were 19 respondents who gave answers and responses by telephone.

Where the 1st question: 3 respondents felt an interest in online learning in biomolecule and metabolism subjects while 11 respondents did not feel an interest in learning because it was not effective both in terms of understanding and effectiveness.

Question 2: 4 respondents felt the effectiveness of studying biomolecule and metabolism courses online while 10 respondents felt it was not effective online because some of the material from this course had to contain direct explanations such as chemical reactions.

Question 3: 11 respondents said this course learning was carried out well in terms of structure, schedule and coordination. Meanwhile, 3 respondents said that course learning was not carried out well because online lectures could not guarantee that the course was structured and coordinated.

Question 4: 2 respondents said the subject matter was easy to understand while 12 respondents had difficulty understanding the material because most of them referred to chemical reactions that were difficult to understand.

Question 5: 14 respondents said the obstacles faced when learning this course were the same, namely the signal / network.

Of the two data collection techniques above, there were also other problems faced by respondents, such as internet network difficulties and limited data quota problems. So that the existence of an online learning system in biomolecule and metabolism courses will be effective and will affect student achievement.

Biomolecule and metabolism courses are courses that must be fully understood by 5A semester Tadris Science students at IAIN Bengkulu. Because this course is a more specific part of biology and chemistry.

Biomolecule and Metabolism courses are courses that must be carried out by 5A semester Tadris Science students at IAIN Bengkulu. Because this course is a more specific part of biology and chemistry. In the delivery of this material itself, the learning technique is

adjusted to the policies of the lecturers and the platforms commonly used in the delivery of this material are whatsapp groups, zoom, Google meetings. However, its effectiveness decreases when online learning systems are applied to this course. Respondents who responded to some of the researchers' questions admitted that it was difficult to understand and digest some of the material, due to different constraints for each student. The level of understanding of different students may be a problem when individuals do not communicate with each other directly. Respondents also claimed that they had difficulty finding new vocabulary in the material, this made their understanding hampered because the term was still not understood. Apart from these internal factors, the key to the difficulty of understanding students is also the electronic media.

Social distancing and physical distancing policies to minimize the spread of COVID-19 encourage all elements of education to activate classes even though schools are closed. Closing schools is the most effective mitigation measure to minimize the spread of the plague to children. The solution given is to implement learning at home by taking advantage of various supporting facilities. During the COVID-19 pandemic, learning at home or online is a solution to continuing the rest of the semester. Online learning is defined as knowledge transfer experience using video, audio, images, text communication, software (Basilaia, G., & Kvavadze, 2020) and with internet network support (Zhu, X., & Liu, 2020). This is a modification of knowledge transfer via website forums (Basilaia, G., & Kvavadze, 2020) and digital technology trends as a hallmark of the industrial revolution 4.0 to support learning during the COVID-19 pandemic. Technology integration and various innovations are characteristic of online learning (Banggur, M. D. V., Situmorang, R., 2018). In addition, the most important thing is the readiness of educators and students to interact online.

The learning process as something that students experience in their own school is the best public policy tool as an effort to increase knowledge and skills. (Caroline Hodges Persell, 1979). What then has also been embedded in most of the students is that school becomes a fun place to play, interact and build relationships and social awareness. Schools are also the center of interaction between teachers and students in improving knowledge, skills and instilling attitudes and character, so this is what then suddenly stops when the school is suddenly closed. The policy issued is an effort to save students from the dangers of the virus but it will also have several impacts, especially on students, teachers, and parents. Students themselves will feel forced to learn from home that actually do not have adequate facilities for this, so the learning process will be hampered which should have been before the start of the learning supporting facilities must be available first. Then next lies in the learning adaptation process, students who previously tend to interact directly in learning will need various kinds of learning adaptations and understand learning modeled in the network, so that the policies given can cause stagnation of students' understanding of learning.

Remembering that changes to online learning have an indirect effect on the absorption of learners (Dewi, 2020). Therefore, that students must be based on various learning experiences so that online learning becomes more flexible (Zapalska, A. and Brozik, 2006). The main problem for these students leads to a change in the learning environment from offline to online so that things are needed that must attract students' online learning interest through the creation of a positive learning environment; building learning communities; provide consistent feedback in a timely manner; and using the right technology to deliver the right content (Chakraborty, M. and Muya Nafukho, 2014)

One of them is by using an infrastructure that supports free online learning through various discussion rooms such as Google Classroom, Whatsapp, Smart Class, Zenius, Quipper and Microsoft. (Abidah, 2020). The Whatsapp feature includes Whatsapp Group which can be used to send text messages, images, videos and files in various formats to all

members (Kusuma, J. W., 2020). Google Classroom also allows educators and teachers to develop creative learning.

Face-to-face discussions and knowledge transfer are like meeting through various free teleconference video platforms such as Zoom and Google Meet. The platform allows educators and students to meet and interact virtually with instant messaging facilities and presentation activities (Wiranda, T., & Adri, 2019) . These various services can be used to support the transfer of knowledge to discussions regarding learning content. This is also done by utilizing all local resources nationally such as television channels for education (Zhou, L., Li, F., Wu, S., & Zhou, 2020) . In Indonesia, television on the TVRI channel is used to broadcast educational content nationally. The broadcast content is classified based on the level of education according to the curriculum in Indonesia.

The variety of platforms and resources available helps support the learning process during the COVID-19 pandemic. Learning activities that can be carried out, starting from discussions, presentations to assignments. This is consistent with research (Firman, & Rahayu, 2020) that online learning trains independent learning. This will require greater learner involvement to improve observational learning behavior. This behavior can be done by reading, interpreting discussion posts and discussing videos or learning content (Zayapragassarazan, 2020). This will familiarize students with collecting and managing information related to assigned assignments without limitation of space and time. This is because online learning allows access to information and knowledge at home and anywhere that is tailored to the convenience of students.

Online learning demands the role of the educator to evaluate its effectiveness and adapt it to learning needs. This is important to do in order to fulfill aspects of learning such as the process of knowledge, morals, skills, intelligence and aesthetics (Dai, D., & Lin, 2020) . Given that changes to online learning indirectly affect the absorption of students (Dewi, 2020). It is important to pay attention to the communication between parents and educators to realize the learning independence of students during the COVID-19 pandemic.

Learning with an online system makes it easy for us to study anywhere and anytime. However, some students complained about the availability of an inadequate environment or place to connect to a stable internet network. Given that students are not only from one region but from various regions. On the other hand, in broad terms the success rate of this online learning system is also determined by the good and bad of the electronic media that students use. Unsuitable or unsuitable electronic media will also hinder students from seeking their own understanding in other sources. Of course, these problems must be evaluated in order to obtain better learning. The key is to do online learning according to local conditions (Zhang, W., Wang, Y., Yang, L., & Wang, 2020). The most important thing is to create independence and learning skills for students in the midst of the COVID-19 pandemic.

For this reason, it is necessary to have awareness from students to improve the learning process outside class hours such as looking for self-learning information both reading and so on, this aims to maximize student understanding of the materials and assignments given by the lecturer in order to maintain the stability of each value. college student. The following are some of the efforts that students can make in running online or online lectures, namely as much as possible focus on understanding the material presented by the lecturer, if there are technical errors or unstable networks, try not to panic and stay relaxed and wait until the network is stable and can attend lectures. again, after that ask friends if there are points that are not understood or can hold group discussions with friends so they can better understand the material, when working on group assignments, students should be disciplined in doing and be responsible for completing their assignments well. In addition, this effort was made, which aims to reduce student obstacles in carrying out online or online lectures, the difficulty in understanding the material presented. Many factors cause this to happen. Apart from the

difficulty in understanding the material presented, the online learning system was deemed ineffective by students.

CONCLUSION

Based on the results of the research, it was found that learning online systems in biomolecule and metabolism courses for Tadris IPA semester 5A students of IAIN Bengkulu caused students to feel face-to-face lectures or in class as usually considered more optimal and the delivery of material given by lecturers was much more acceptable than on online or online lectures which have had several obstacles and obstacles for some students so far. Due to the many obstacles or obstacles that are considered ineffective by students, the government should be able to make this a benchmark for the development of education by students, especially students in Indonesia.

We can understand together that the Covid-19 pandemic has forced all sectors to transform suddenly to accommodate offline-based activities going online, the birth of the MENDIKBUD policy to work from home and learn from home is one of the efforts to protect the community from the pandemic. . However, on the one hand this policy has had a lot of impact on the educational process for both students and teachers as well as families or parents. The main problem lies in the inadequacy of facilities, knowledge and inexperience, so that it takes time to adapt and causes delays in the learning process, as well as differences in regional conditions that are not all accessible to the internet as a whole. Therefore, it is necessary to update the educational model in accordance with pandemic conditions but does not have an impact on the learning process, for example conducting contextual learning based on daily life for students. Students experience problems or unstable networks when online classes admit that they have great difficulty absorbing the material provided by the lecturer which results in not maximizing the material presented by the lecturer and some students also have difficulty working on group assignments that require students to understand the material well plus students who find it difficult to use the application. This can affect student scores in the upcoming final semester exams. Because the material is not conveyed properly and the work on the assignment is not maximal it is feared that students will get final grades or GPA that will decrease this year.

For this reason, there needs to be awareness from students to improve the learning process outside class hours, this aims to maximize student understanding of the materials and assignments given by the lecturer in order to maintain the stability of the value of each student. The following are some of the efforts that students can make in running online or online lectures, namely as much as possible focus on understanding the material presented by the lecturer, if there are technical errors or unstable networks, try not to panic and stay relaxed and wait until the network is stable and can attend lectures again, after that ask friends if there are points that are not understood or can hold group discussions with friends so they can better understand the material, when working on group assignments, students should be disciplined in doing and be responsible for completing them well. Those are the efforts that students can make during online or online lectures. This effort was carried out aimed at reducing student obstacles in carrying out online lectures or difficulties in understanding the material presented. Many factors cause this to happen. Apart from the difficulty in understanding the material presented, the online learning system was deemed ineffective by students.

Online learning makes it easy to provide information transfers on various situations and conditions. The various benefits of the ease of online learning are supported by various platforms ranging from discussions to face-to-face virtually. However, this needs to be evaluated and adjusted to local conditions, given that the ability of parents to provide online

learning facilities is different. The key is to maximize the ability of students to learn in a pandemic like this.

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