

Learning Management System (*LMS*): Moodle Applications as Distance Media During Pandemic Covid-19

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Moodle is a technology-based media that can be used for distance learning. The application can motivate students to continue learning amid the COVID-19 pandemic. This research was conducted to find out how much motivation and interest of student talent when using moodle in the distance learning process. This research is a quantitative descriptive study with data collection techniques using a questionnaire and interview methods via email and social media. Data from this study indicate that the majority of students are gifted and skilled in using moodle e-learning applications and there is a positive interest in student learning. Most students play an active role to discuss when participating in learning. Students also feel that this application can be a learning media based on video conferencing and social media.

Key words: *Evaluation, Moodle Application, Motivation, Interests and talents, pandemic COVID-19*

Introduction

One of the main principles in the learning process is the activeness of students. The activeness of students in the learning process is very important because it can make learning run according to the learning plan that has been prepared by the educator. So the learning objectives that have been formulated will be achieved. As many as 28% of students' interest in learning is influenced by the presence of teachers (Wicaksana and Atmadja, 2018). The learning process can be said to be successful and quality if most or all students are actively involved, both physically, socially and mentally in the learning process (Mulyasa, 2005).

The success of the learning and teaching activities can be seen from all factors related to educators and students. Starting from the behavior of educators in teaching to the behavior of students as reciprocity from the results of a learning. The attitude of students while carrying out learning can indicate whether students are interested in the lessons being carried out or even vice versa. The interest of these students is a sign of interest (Irwanto, 2002). Interest is an intrinsic motivation as a learning force that becomes a driving force for someone to do activities with full force and tend to stay, where the activity is a process of learning experience carried out with full awareness and bring feelings of joy, pleasure, and joy. Whereas interest in learning itself can be interpreted as attention, liking, and a sense of interest in a person (learners) towards

learning that is indicated by participation, the desire of students to learn well and student attention in subject matter actively and seriously (Soemanto, 1990).

Students who are active in the learning process will create a more lively and conducive classroom atmosphere, where each student can involve their abilities to the maximum extent possible. Meaningful learning occurs when learners play an active role in the learning process and are finally able to decide what to learn and how to learn it. From activities arising from students, it shows that there are interests and motivations of the students themselves (Siregar and Hartini, 2015). Interest is one of the factors that can affect a person's business. An interest that feels strong will lead to a serious, persistent effort and not easily discouraged in facing challenges or obstacles. If a student has a sense of learning, he will quickly understand and remember it (Purwanto, 2007).

The development of Information Technology has encouraged the emergence of various learning models of innovation in the field of education (Coller and Scott, 2009). The technology-based innovative learning model arises because of the constraints found in traditional learning methods, where students cannot be actively involved in the teaching and learning process in the form of physical meetings (Main, Sajidan, Nurkamto, and Wiranto, 2019). Traditionally, learning environment refers to a face-to-face learning system (teacher-directed learning). Students only react to their environment, but do not play an active role in their environment (Abidin and Zaman, 2017).

The purpose of education with advances in technology and knowledge influences the process of education and teaching, this results in requiring educators to be able to use the media. Learning media are often interpreted as anything that can be used by educators to channel learning messages (message learning), stimulate the thoughts, feelings, concerns and competencies of students so that they can motivate students in the learning process (Prieto, Palma, Tobías, and León, 2019 ; Lloyd and Robertson, 2012). From this explanation, learning media can be interpreted as a tool used by educators in the learning process to facilitate the delivery of information or knowledge transfer to students and motivate for the realization of effective learning (Wiyani, 2013; Briz-Poncea, Pereirab, Carvalhoc, Juanes-Méndez , and García-Peñalvo, 2017).

One of technology-based learning media that can be used as support for existing media is in the form of e-learning (electronic learning). E-learning is an internet application that can connect students and educators in an online learning room (Green, Pinder-Grover, and Millunchick, 2012). E-learning is designed to overcome the limitations between educators and students, especially in terms of time, space conditions, and circumstances (Huckabee and Bissette, 2014; Mattar, 2018). In summary, e-learning can create a digital space of learning, where students can access material from various sources without being limited by space and time (Dermawan, 2016).

Today the world is shocked by the epidemic of a disease caused by a virus called corona or known as COVID-19. As a result of the COVID-19 pandemic, policies have been put in place to break the chain of the spread of COVID-19. Social distancing becomes a heavy choice for every country in implementing policies to prevent the spread of COVID-19, because this policy has a negative impact on all aspects of life. Restricting social interaction can hamper the rate of growth and progress in various fields of life, but there is no other choice, because this method is the most effective. Social Distancing policy has a fatal impact on the wheel of human life, the economic problem that is most felt its impact, because it touches various layers of society. No exception in the field of education is also affected by this policy. The government's sudden decision to dismiss or move the learning process from school or college to home overwhelms many parties. This transition of learning forces various parties to follow the path that might be

taken so that learning can take place, and the choice is to use technology as online learning media or with e-learning models (Bicen and Kocakoyun, 2018; Icard, 2014).

There are many types of applications that support the process of making learning media with e-learning models, one of which is Moodle. Moodle is a software package that can be modified / incorporated various multimedia elements in the form of flash (moving animation), audio (sound) or video (picture and sound). Moodle is given free as open source software. That is, even though the device has copyright, moodle still gives freedom for users to use and modify according to user needs (Amiroh, 2012). Moodle is the most well-known open source program among e-learning programs available, for example atutor, Learning Management System (LMS) and so on. This moodle application was first developed by Martin Dougiamas in August 2002 with Moodle version 1.0. Moodle is an acronym for Modulator Object Oriented Dynamic Learning Environment, which basically teaches and students conduct teaching activities in online activities (Kadek and Sastra, 2014).

The use of the Moodle application is very helpful, especially in the midst of the covid-19 pandemic situation which requires keeping a distance, so this moodle application can be used as a solution so that teaching and learning activities continue as they should. With this application makes an alternative for teachers to continue to be able to share their knowledge without having to violate the obligation to keep distance. So that students also get the right to continue to gain knowledge. The existence of this application proves that distance does not impede something, especially in the field of education (Belina, 2013). Using this e-learning based application the great distance between lecturers and students during the COVID-19 pandemic can be helped by the teaching team (Rizal and Walidain, 2019). There are features that can help when the learning process takes place such as quizzes, collaboration, assignments and communication and which can upload various forms of material provided are referred to as the main features (Surjono, 2011).

In the course of evaluating the process and learning outcomes of Biology it is still very rare to use moodle learning media. In this study the writer wants to explore how students respond, especially in terms of motivation and interest in learning. By using the Moodle application as a learning media for evaluating the learning process and learning outcomes in Biology subjects, it is expected that teaching and learning activities will be more effective. Although many research results show that the effectiveness of learning using e-learning systems tends to be the same when compared to conventional learning. However, there are advantages that can be obtained by e-learning in terms of flexibility, especially learning amid the COVID-19 pandemic.

Research Method

This type of research is quantitative descriptive. This study uses a questionnaire instrument distributed via WhatsApp to 11th grade students at one of the high schools in Yogyakarta. Questionnaire is a means of collecting data or information through a list of questions or written statements that have been prepared and distributed to respondents. The questionnaire method in this study aims to measure students' interest and motivation to use Moodle as a learning medium. In addition to using a questionnaire, the process of cross-checking data was also carried out using interview sheets. This interview was conducted to clarify and get deeper data about the points studied.

This study aims to determine the effectiveness of learning by using Moodle on the interests and motivation of students in Biology subjects. Data collection is taken from the results of responses or responses to questionnaires that have been distributed. Results data will be

presented in tabular form. Data analysis conducted aims to give meaning to the data that has been collected. The results of the study that will be analyzed descriptively are questionnaire data on students' interest and motivation to use the Moodle learning media.

Results and Discussion

In the Moodle application there are several components with different functions that can support the learning process. These components include Activities, Forum Search, Administration, and Course Categories. Each moodle component has different functions to develop moodle according to the user wants (Dvorak, 2011)

Moodle has advantages and disadvantages. The advantages of the moodle application are that a) everyone can download moodle software on the internet for free from the official website; b) easy to use, moodle is designed according to the needs of the learning process; c) easy installation process; d) availability of quiz facilities, assignments, and grading that can be arranged as needed; e) has a large capacity of students; f) suitable for online teaching media; g) supports several file types that can be used for the learning process; h) contain neat structure of teaching materials and can be made in several categories; i) availability of language packages that can be chosen according to needs; and j) can change the appearance of the site because it is equipped with a menu to change themes (Rulianto, 2009). The drawbacks of the Moodle application are a) slow access time due to small bandwidth and poor design of material that has a large file size; b) unable to meet the needs of users caused by poor design of web learning applications so that it is not in accordance with user needs; and c) The user does not know and know the system well from his own perspective, orientation according to how he sees things (Setiawan, 2006).

At this time many educational institutions have used the Moodle application as a learning medium. Moodle is one of the learning media that can be applied in the Biology learning process. Judging from the components that are owned, Moodle has features that can be used to convey a variety of material in Biology subjects. Features that can be used to support learning, for example: assignments, quizzes, communication, collaboration, and the main features that can upload various formats of learning materials. Therefore, the delivery of the material will be easier and more interesting because there are features that support teaching and learning activities, so that the objectives of learning can be achieved. The experimental group utilizes e-learning for the learning process. With that very positive influence on students because motivation in learning increases. In contrast to the learning process in the control group that still uses the LCD projector as a tool in the learning process and presentation material (Samsuddin, 2013). From the results of the questionnaire that was distributed, there were 8 responses from students (see Table 1).

Table 1 Talent and Motivation Data

Research Subjects	Gender	Interest	Talent	Motivation
Student 1	Girl	Ordinary	Good	Ordinary
Student 2	Girl	Interested	Good	Motivated
Student 3	Girl	Ordinary	Good	Very motivated
Student 4	Girl	Interested	Good	Very motivated

Student 5	Girl	Interested	Good	Motivated
Student 6	Girl	Interested	Good	Very motivated
Student 7	Girl	Interested	Good	Very motivated
Student 8	Boy	Interested	Good	Very motivated

Figure 1 shows that 75% of students interested in online learning using Moodle. The outbreak of the COVID-19 outbreak requires students to use e-learning applications. So like it or not, students must use it for the lecture process. With the appeal for learning from home also makes students interested in using e-learning, especially Moodle. Although there are 25% of students who are mediocre in their interest in using Moodle.

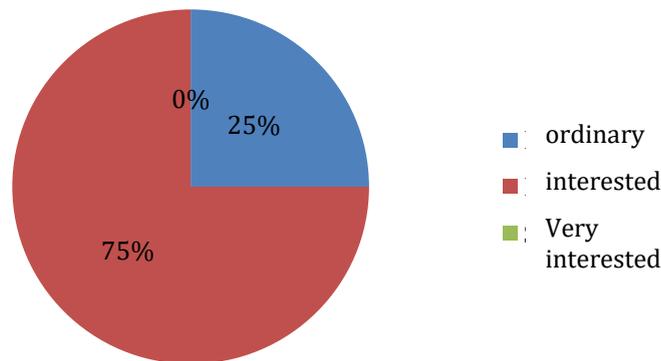


Figure 1 Student Interest Data Towards Learning Using Moodle

Data Figure 2 shows data that makes students easy to use the moodle application. This data means that none of the students has experienced difficulties using the moodle application. Though first time students use this moodle application. They learn self-taught. There is no specific training in using it. Moodle is designed to be easy to use, but in its use it requires basic knowledge and skills that must be possessed first. In this study also extracted information that makes them talented in using it. Among them are the ability to operate computers, knowledge in understanding applications, especially menus, as well as knowledge and skills in uploading and downloading files.

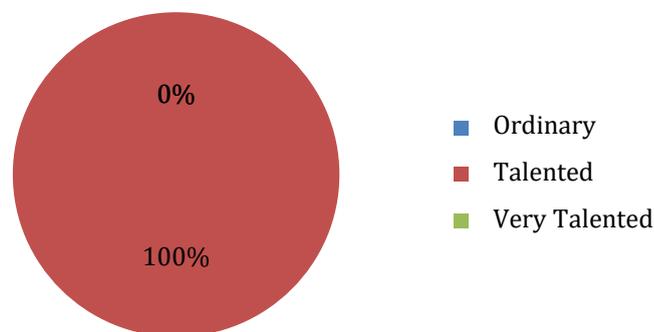


Figure 2 Student Talent Data in Using Moodle

Figure 3 shows that the majority of students are very motivated in using moodle. As many as 62% of students feel very motivated to study online when using moodle. As many as

25% of students feel motivated. In searching the data through interviews it was found that there were several reasons why they became motivated. The reason for this is that in online learning, the majority of teachers use the WhatsApp group social media application. In addition, teachers sometimes use the zoom cloud meeting application to explain. According to information, the majority of them are very bored and do not understand when learning to use the WhatsApp application. When using the zoom conference video conference application they also feel less excited because of internet quota constraints. The internet quota needed in using the zoom meeting is very large for students. They objected and sometimes there were some students who did not get enough signals to use the application. In the midst of boredom they get an alternative application used for learning, the moodle application. This moodle application is felt by students to be a bridge between the video conference application and social media. Almost all students play an active role in discussing and providing feed back in learning biology using moodle.

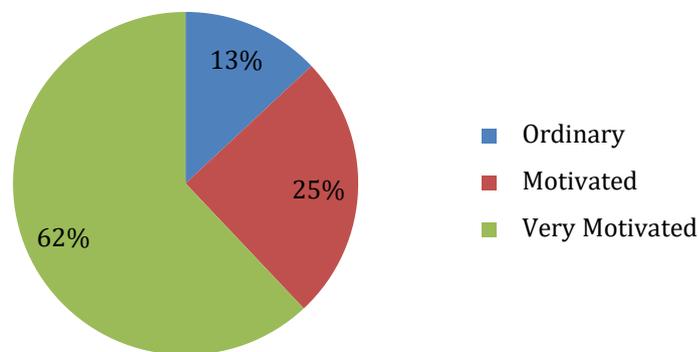


Figure 3 Student Motivation Data in Using Moodle

Conclusion

In general there is a positive interest from students to follow biology learning by using the Moodle application. Many students play an active role in discussing and giving feedback in following the learning process. The moodle application is considered by students to be a more profitable alternative to the use of video conferencing and social media applications in the distance learning process. Moodle also doesn't require a lot of quota and can also be used interactively. In addition to moodle applications, many other applications that can be used as a learning medium for example google classroom, edmodo and others.

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