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# Development Of E-Learning using Moodle as Online Course Media on Private Sean Institute

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**Article Info**

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**ABSTRACT**

Today's technological developments have developed rapidly and have become an integral part of supporting the smooth running of activities or daily activities in government agencies, marketing, and even informal and non-formal education. The purpose of this research is to develop e-learning in support of online course activities given the current conditions during the pandemic, which resulted in activities being carried out from home or with the term Work From Home (WFH). From Leni Zuliana's research, she has researched the topic of analyzing the use of e-learning and found that there was a significant increase when using the media, with the calculation of the media expert's assessment being said to be very feasible with an overall average of 100% and the evaluation of material experts in every conceivable category. With an overall mean of 95.4%. This research aims to produce e-learning, which can be used as a medium for online course learning. Some of the work steps used to make e-learning are ensuring problems with the object under study, collecting data, developing applications, testing, and implementing media. The content on e-learning is created with several features, namely 1) uploading course material in a specific form, pdf, PowerPoint and video 2) making daily questions and assessing and returning answer papers 3) real-time video conference facilities with zoom or with supporting facilities and other supporting activities that can be included in e-learning.



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## 1. INTRODUCTION

The development of learning technology is an essential part of the continuity of the learning process both as a support for conventional learning or the learning process online. One that is developing to ensure this development is e-learning means learning using electronic device assistance services. So in practice, e-learning uses audio, video, or computer services or a combination of the three. In other words, e-learning is learning, which in its implementation is supported by technology services such as telephone, audio, videotape, satellite transmission, or computers. In line with that, Onno W. Purbo explained that the term "e" in e-learning is any technology used to support teaching efforts through internet electronic technology. Internet, satellite, audio/videotapes, interactive tv, and CD-ROM are some of the electronic media used. Teaching may be delivered at the same time (synchronously) or at different times (asynchronously)[1].

The problem in this study is devoted to non-formal learning where course activities that have been face-to-face and require direct discussion are terminated and switch to online education[2].

Several activities and activities have been carried out for sustainability, namely by utilizing zoom where this facility is only for face to face and sometimes constrained by a network that does not support or screen problems or even interference from other users[3]. Based on this description, e-learning will be developed in which it can provide learning history and can review topics that have been conveyed either with video recordings, exams, and other supporting materials[4], [5].

To support the development of e-learning in solving problems, Moodle is used without understanding in detail programming on a computer. Moodle is a web-based platform[6]. So, all teaching and learning activities are carried out by accessing the website using a browser. The history of developing Moodle started in 1970[7]. However, it was only officially released in 2002[8]. Martin Dougiamas is the figure behind one of the best e-learning platforms. This platform is open source and can be used free of charge. Thus, it can be a solution for teaching and learning methods that are inexpensive but still effective. Many schools, colleges, and educational institutions use Moodle. Moodle's advantages are that it is easy to get because it is free and does not have a special license[9]. It is easy to use simply by using drag-and-drop, making it easier to create learning materials; this platform supports all scales of learning, ranging from small classes containing several people to learning portals for thousands of people companies and schools. Data security is maintained by developing existing versions.

## 2. RESEARCH METHOD

The research method used is by following the following flow of implementation:

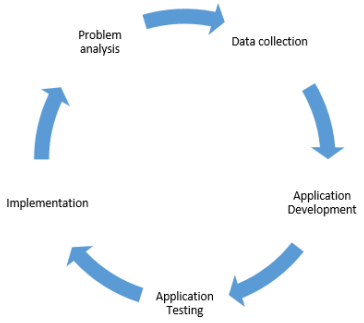


Figure 1. Research work steps

a. Problem analysis
   At this stage, it is ascertained the problem with the object used as part of the research, namely the covid 19 pandemic that occurred so that the transition of learning from conventional to online learning.
b. Data collection
   The data collection stages are by collecting the processes that will be carried out in online learning so that it is more optimal when using e-learning. The due process in the activity is the delivery of material online and video conferencing in real-time.
c. E-Learning Development
   At this stage, development is carried out by utilizing Moodle as part of e-learning by installing to predetermined domains and adding plug-ins to support the e-learning process to make it more quality and attractive.
d. Application Testing
   The application testing stage is the stage carried out before implementation, namely testing the developed e-learning so that improvements will be found to produce quality e-learning. Some of the roles in testing are expert and end-user.
e. Implementation
   This stage is the stage of using the application in online course activities.

## 3. RESULTS AND DISCUSSION

Based on the implementation and design of e-learning, a display that supports online course activities is produced with the following views:

a. Login page

The login page is used as access rights for e-learning with three primary levels, namely admin with overall access rights, teachers with immediate access to add courses and manage course hours, while the student level follows what the teacher gives. The e-learning login display is illustrated in the following picture:

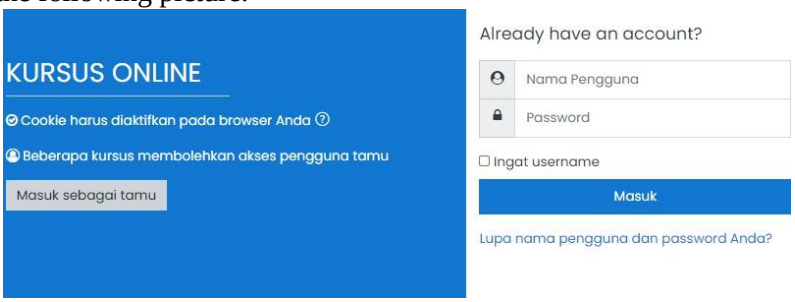


Figure 2. Login on E-learning

b. Main Menu Display

The main menu display is the initial display when the admin or user logs in using a registered username and password. Some of the activities or features provided are the dashboard page, site home, calendar, private files, and site administration. Here is a view of the main menu served by Moodle.

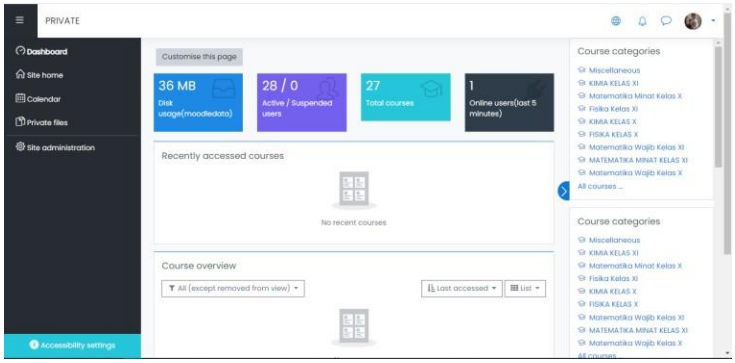


Figure 3. E-learning Main Menu Display

c. Site administration

Site administration is used to make changes or settings in managing users, model, and type of courses, grades, plugins, appearances, servers, reports, and development. With the display below:

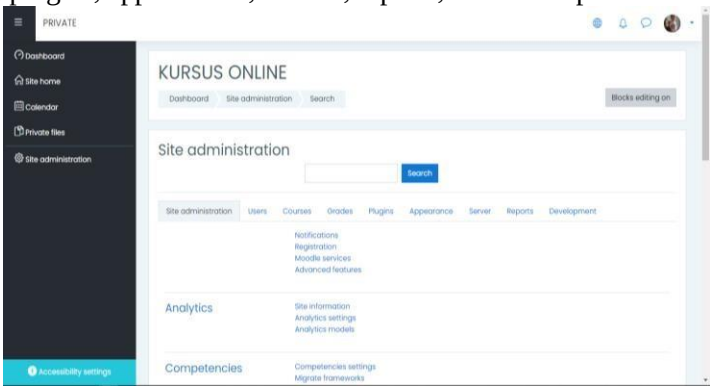


Figure 4. Site administration

d. Create Course

To create a course, the facilities used are selecting the course page and category to display the type of Course designed and add classes. Here is an image for course creation.

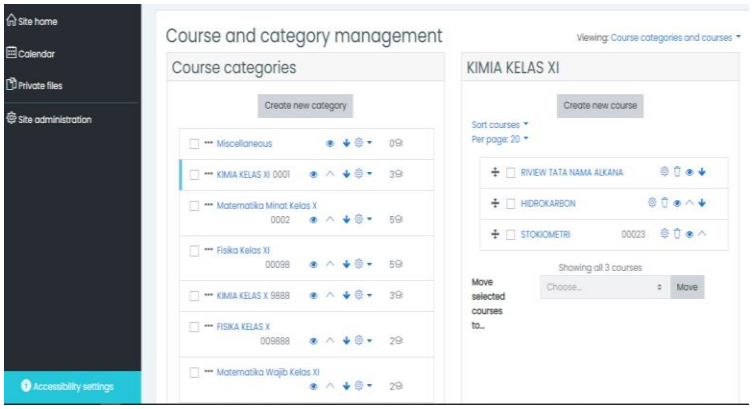


Figure 5. Create a Course

e. Course Participants

For course participants with the appearance and design in the following picture with several levels of information, namely who is the teacher and who is the student for a particular activity or Course, with the next picture:

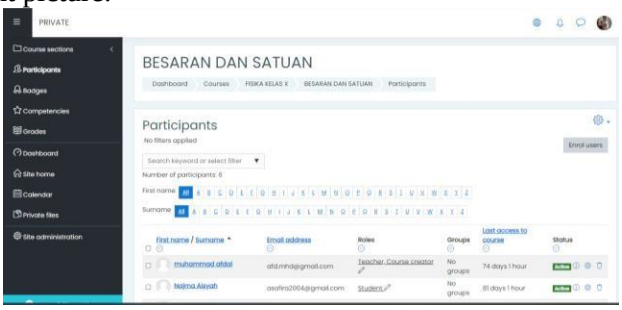


Figure 6. Course Participants

## 4. CONCLUSION

E-learning has been successful by utilizing Moodle. The course's online learning process can be carried out following what has happened before, namely the availability of very many features both in managing the material that the teacher will convey to students in video or pdf document form. , word and others. Video conferencing facilities in real-time also function well and have chat facilities that allow teachers and students to have good interactions. To add features through the process of determining e-learning.

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