WEB-BASED LEARNING MEDIA APPLICATION

M. Arinal Ihsan¹, Teuku Rinal Liza², Darma setiawan³ and Asmaidi⁴

¹,²,³,⁴Politeknik Aceh Selatan
E-mail: arynalfrank@gmail.com

Abstract
The learning model currently applied at the South Aceh Polytechnic is conventional. Students only listen to the lecturers' presentation and thus they easily get bored, tired and declining learning motivation. This due to the lack of transfer knowledge experienced by students, resulted in students being unable to grasp the material presented by lecturers whilst some students assigned lower achiever. This study aims to develop a web-based learning media application at the South Aceh Polytechnic. Web-based learning media developed with MySQL and PHP programming languages. The research method used is the waterfall research method combined with observation and interviews. The collected data is then analyzed descriptively. The results of this study that delivering lesson through website-based learning media can improve students' performance in a typical courses.

Keywords: Learning media; e-learning, website

1. Introduction
The need for concepts and mechanisms of IT-based teaching and learning (education) is inevitable along with the rapid development of Information Technology (IT). This concept, known as e-Learning, has effects on the transformation of conventional education into digital form for both the contents and the system. Meanwhile, the e-Learning concept has been globally recognized. Furthermore, educational institutions implement e-Learning in their institutions

E-Learning is an education system that utilizes electronic applications to support the development of teaching and learning activities with the internet, LAN or other computer network media. E-Learning allows the learning process to occur without going through face-to-face and the development of knowledge can be done easily. Through the e-Learning system, it is hoped that it can improve the effectiveness and efficiency of the learning process and help achieve the learning objectives. Also, it is hoped that it can more easily obtain information about the learning that is assigned; so students can be more active in participating in learning activities

According to (Hadi Susarno, 2010), learning media is a messenger technology that can be utilized for learning purposes. According to (Hujair ah Sanaky, 2013), Media in learning functions to clarify the message conveyed by the teacher. The media also functions as a teaching aid. According to (Jogiyanto, 2014), Based on media taxonomy, Gagne classifies the types of media based on learning functions, namely demonstration media, oral delivery, print media, still images, motion pictures, film with sound, and machine learning. According to (Munadi. 2012), a Website is the whole web pages contained in a domain that contains information. A website usually consists of many web pages that are interconnected.

2. Research Methodology
2.1 Implementation Workflow
The workflow of this research as seen on Figure 1

![Implementation Flowchart](image)

Figure. 1 Implementation Flowchart
The workflow of this research is used so that the implementation process runs as expected.

2.2 Materials
To encourage the implementation of this
Research, several supporting tools are needed, including the following:

1. **Hardware**, The devices in this implementation are a computer or laptop with sufficient specifications to run the software.

2. **Software**, The software used in this implementation is:
   a. Xampp
   b. Notepad++

### 2.3 Implementation Procedure

The implementation of this research was carried out by the following process:

1. **Observation**
   Observations are made to gather information to explore existing problems.

2. **Problem identification**
   This activity is accomplished after observations then proceed to identify the problem in order to determine the main points. This problem is mentioned in the background, written with an interesting narrative to describe the research topic.

3. **Literature Review**
   In this activity the data and information collected are relevant to the research topic, in the form of literature and scientific work.

4. **Design**
   At this stage, the application is designed in such a way especially the interface.

5. **Implementation**
   This activity involves the process of coding and testing applications that have been designed.

### 3. Implementation

#### 1. Admin Menu Interface

A menu display will appear as shown below when the admin logs in.

![Figure 2. Admin Menu Interface](image)

#### 2. Instructors’ Interface

When the lecturer logs in, a menu display will appear as shown below.

![Figure 3. Instructors’ Interface](image)

#### 3. Content Interface

In the lecturer menu display, there are several menus, one of which is the content menu, which functions to view subjects data.

![Figure 4. Content Interface](image)

#### 4. Class Management Interface

In the admin menu, there are several menus, one of which is the class management menu, which functions to view class data.

![Figure 5. Class Management Interface](image)

#### 5. Quiz Management Menu Interface

In the admin menu, there are several menus, one of which is the quiz management menu, which functions to view quiz data.
6. **Student Menu Display**

When a student is logged in, a menu will appear as shown below.

![Figure 6. Quiz Management Interface](image)

7. **Your Class Display**

In the student menu display, there are several menus, one of which is “Your Class” menu, which functions to view class data.

![Figure 7. Students Menu Display](image)

8. **Course Menu Interface**

In the student menu display, there are several menus, one of which is the course menu, which functions to view course data.

![Figure 8. Your Class Menu Display](image)

9. **Material Menu Display**

In the student menu display, there are several menus, one of which is the material menu, which functions to view material data.

![Figure 10. Material Menu Display](image)

10. **Task / Quiz Menu Display**

In the student menu interface, there are several menus, one of which is the task / quiz menu, which functions to view the task / quiz data.

![Figure 11. Task / Quiz Menu Display](image)

11. **Score Menu Interface**

In the student menu display, there are several menus, one of which is the score menu, which functions to view students’ score data.

![Figure 12. Score Menu Interface](image)

12. **E-Learning Register Menu Interface**

In the student login screen there is an e-learning enlist menu that functions for student registration.

![Figure 13. E-Learning Register Menu Interface](image)
4. Conclusion

From the results of the analysis and design of this learning media application system it can be concluded:

1. This application was created to facilitate the learning process because this application can be run wherever the user is.
2. This application can help the teaching and learning process to be effective and efficient.

5. References