

## Development of Digital-Based Classroom Learning E-Learning Web Interface Study Bumigora University Project Case

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**Abstract:** Bumigora University has been trusted as a campus that can develop interactive learning models based on free open source software for all teaching and learning activities related to computers at Bumigora University. One of the obstacles that arises is doing full-day learning (8 hours) there is limited time and the material load is quite dense so a breakthrough learning model is needed that gives rise to acceleration and ease of transferring knowledge from learning sources (lecturers, textbooks, and other learning resources) to student. Therefore, Bumigora University designed an application in the form of a website where in this application admins and teachers can carry out management processes on student data and can convey information and materials or assignments to students. Students can see information about teaching and learning activities and can see subjects, materials, and grades. You can also download materials. From the results of testing using the Black Box Testing method that has been carried out, it can be concluded that the Bumigora University E-Learning System has fulfilled the research objectives to be used properly, as evidenced by the functioning of the functions in the application properly.

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## Introduction

Bumigora University (UBG) is a university resulting from a merger between 2 universities, namely STMIK Bumigora Mataram and STIBA Bumigora Mataram, which are under one Computer Executive Education Foundation (YPEK) and at the same time changing its form to a university, this is based on a decree issued by the Kemenristek DIKTI No: 126/KPT/I/2018. At first YPEK had 2 universities, namely STMIK Bumigora Mataram, which is a computer college in the NTB region, especially in the field of computer informatics, which was established in 1991 and until 2017 had a total of 4 study programs, namely: S1 Informatics Engineering Study Program, S1 Visual Communication Design Study Program, D3 Informatics Engineering Study Program, D3 Informatics Management Study Program.

Bumigora University conducts product development of information technology products (software and hardware supply spare parts), including interactive learning model development services based on free open source software as a facility service for developing

interactive-based learning models and facility services for developing educational facilities with digital computer technology and digitizing mobile smartphone-based learning tools.

Bumigora University to develop an interactive learning model based on free open source software for all computer-related teaching and learning activities at the university. In addition, Bumigora University is also trusted for the creation of applications, web, and networks that are in several clients of cooperation partners with other universities in Indonesia.

On the other hand, there are other obstacles, namely that there are many students who are emotionally constrained where students are embarrassed to ask when students do not understand what the lecturer says during the teaching and learning process in certain courses, resulting in a lack of interaction between students and lecturers. Especially when students are unable to attend the classical learning process, namely lecturers delivering teaching materials to students, so that the obstacles of not delivering teaching materials per day where the student cannot attend, will become a point of lagging teaching materials and this greatly disrupts the smoothness and target of delivering teaching materials for teaching and learning activities.

Likewise, on the other hand, if the lecturer is unable to attend, it causes student assignments that have been done to be lost or mixed with other student assignments because the lecturer does not yet have a storage medium for collecting assignments. Based on the problems mentioned above, the campus needs Intikom Bumigora University to create another learning media that can support teaching and learning activities outside the web-based campus where the material delivery system and task collection media can be computerized and can be accessed anytime and anywhere so as to maximize teaching and learning activities.

The learning system embedded in the national curriculum and local content curriculum, which is presented in the form of electronic teacher for digital school is a contemporary breakthrough in learning models carried out in electronic media, especially using internet and intranet facilities as an integrated learning system. E-Learning is a learning media with the form of electronic teacher for digital school is very appropriate because E-Learning places and makes users contribute actively in adding, deleting and even sharing subject matter, opinions and questions.

(Soares, Borroring & Fitriastuti, 2016), in his journal entitled E-Learning Design of Janabadra University Using Efront, teaching and learning activities at Janabadra University are currently carried out face-to-face, meaning that learning activities have been carried out in class. Therefore, Janabadra University needs facilities that make it easier for lecturers to convey lecture information, provide lecture material, quizzes, and students continue to carry out lectures if the lecturer is unable to attend. So far, the facilities that have been used are e-learning made with CMS (Course Management System) moodle but the use of this system is less effective because the system is less secure and the access time is long. E-Learning allows students to learn through computers without having to attend teaching and learning activities or lectures in class.

According to the analysis that has been done by previous researchers, the application made is only an e-learning application that can only display data and input data only. So from the shortcomings of previous research in the thesis Designing E-Learning Digital-Based Classroom Learning Case Study Project Intikom bumigora university, the author will add the

following features: 1. The application is made using PHP and the final result of the application is a Web Application. 2. My Sql as data storage (Database). 3. Manage data on lecturers, students, courses, and grades. 4. Features download material in the form of documents in pdf format by students on the student page, 5. Features upload photos and materials that have been determined the size of the photo size to be uploaded.

According to (Ardiansyah, 2013), E-Learning is a learning system that is used as a means is as a teaching and learning process that is carried out without having to meet face to face directly between teachers and students.

According to (Maulana, 2014), Digital technology is a technology that does not use human labor. However, it tends to be an operating system that runs automatically on a computerized system or format that can be read on a computer. Digital technology is a counter system that is so fast in processing all forms of information into numerical values.

According to (Pratama, 2019), UML is a language for building, visualizing, specifying, and documenting artifacts (part of the information to be used as a result in the software creation process) of software systems, such as those in business modeling, and other non-software systems. In addition, UML is a modeling language that uses the concept of object orientation. UML was created by Grady Booch, James Rumbaugh, and Ivar Jacobson under the Rational Software Corps banner. The use of the UML model serves to identify the parts included in the scope of the system in the application and is a standard used to design a model of a system. The use of UML used in making this application includes Use Case Diagram, Class Diagram, and Activity Diagram.

According to (Remick, 2011), is an application that uses browser technology in operating the application and is accessed using a computer network. According to Rouse (2011), a web application is a program that is stored on a server and sent over the internet and accessed through a browser interface.

According to (Ribudi, 2015), MySQL is a multi-user, multi-threaded, sql database management system or DBMS with about 6 million installations worldwide. MySQL AB makes MySQL available as free software under the GNU General Public License (GPL), but they also sell under a commercial license for cases where users are not compatible with using the GPL. Unlike PHP or Apache which are software developed by the general community, and the copyright for the source code is owned by their respective authors, MySQL is owned and sponsored by a Swedish commercial company MySQL AB. MySQL AB holds full copyright to almost all of its source code.

According to (C.R, 2016), Geany is a code editor that can run on all platforms. Geany is a text editor application that has quite complete features for developing programs. One feature that makes it easy to develop Java applications is the existence of tools to compile and execute the program directly.

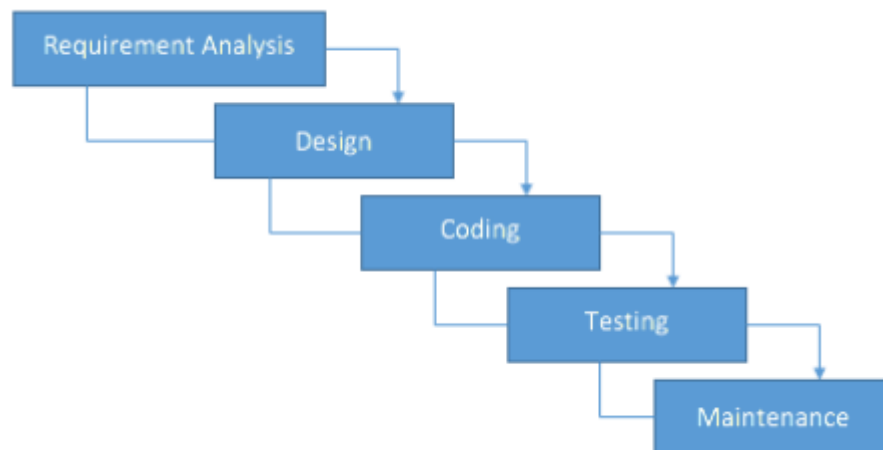
According to (Arif Budiman, 2019), Geany is an IDE that is very light and small in size but Geany has the advantage of being "Powerful", suitable for those of you who are just learning the C++ programming language. Not only C++ Geany also supports several programming languages, one of which is PHP. Geany does not require a lot of dependencies, that's why Geany is lightweight to use. Geany can also be installed on many operating systems, such as Linux, FreeBSD, NetBSD, OpenBSD, MacOS X, AIX V5.3, Solaris Express, and Windows.

According to (Arif Budiman, 2019), PHP Programming Language is a server side script programming language designed for web development. Hyper Text stands for PHP which is used as a script to beautify the appearance of the website. PHP is also used in conjunction with other programming languages such as HTML programming language and java script.

According to (Greenit., 2018) The Black Box Testing method is a test that is carried out for execution through test data and checks the functionality of the software. Observation of these results through test data and functional checks obtained from the software itself. In this black box testing can evaluate on the outside appearance (interface), functional, and not see what actually happens in the detailed process. Only know the input and output process.

### Research Method

This research uses the SDLC (Software Development Life Cycle) method, SDLC (Software Development Life Cycle), has various models including Waterfall, Iteration, Rapid Application Development, and Prototyping. Of the four SDLC models, the author uses the waterfall method to build this application. It is called waterfall because this waterfall model is linear, that is, stage by stage must be carried out in stages and will not be carried out to the next stage if the previous stage has not been completed and cannot repeat to the previous stage. Waterfall Model is the most widely used model in Software Engineering. The stages of the Waterfall model are shown in Figure 1



**Figure 1. Waterfall method**

Making an information system requires tools and materials to support the planning and implementation of the application. Tools used in making applications in the form of hardware and software. a. Hardware In making the application "Designing E-Learning Digital-based Classroom Learning Case Study Project Bumigora University" Developer needs hardware. The required hardware can be seen in table 1.

**Table 1. Hardware Specifications**

Device name	Specifications
Processor	Intel(R) Core(TM) i7(17-870) CPU @ 2.80GHz
<b>RAM</b>	<b>4GB</b>

Operating System	Mac OS High Sierra version 10.13.4
HDD	750GB

### Software

Software is the most important thing in supporting the performance of making applications. Software is in charge of giving commands to hardware to interact between the two. The software used by developers can be seen in table 2.

**Table 2. Software Specifications**

Name of Device	Specifications
Operating System	Mac OS High Sierra version 10.13.4
The following tools are used	Geany 1.34 My Sql Server Safari

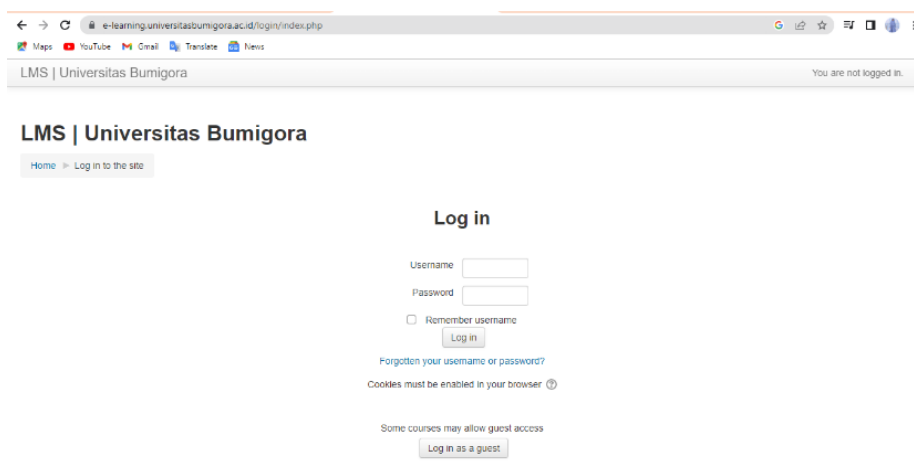
### Result and Discussion

After designing and analyzing the next stage the application is implemented. The interface design that has been made before is converted into programming language. The programming language used in making the application "Designing Digital-based E-Learning Classroom Learning Case Study Project Bumigora University" uses the PHP programming language.

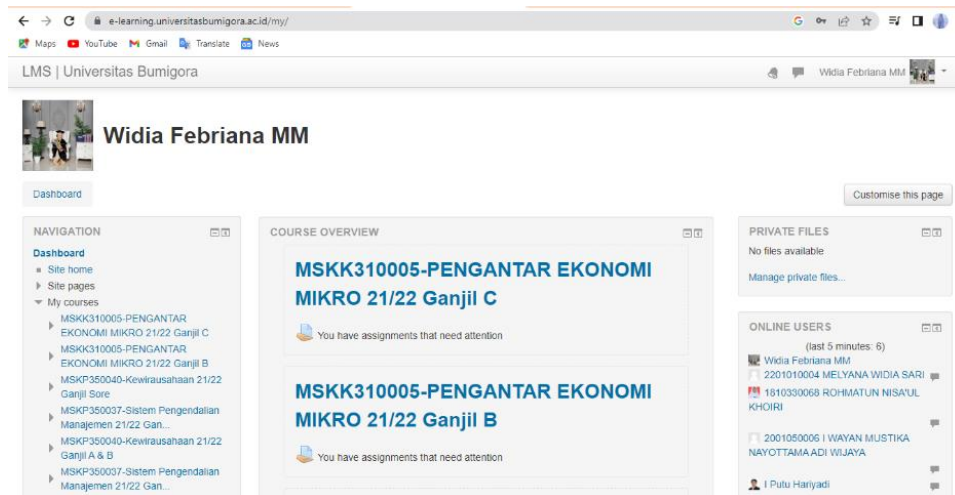
#### Admin Login Page

Every application needs security, so Login serves to secure the data in the application. On the login page lecturers and students, Admin, and Teachers are asked to fill in their username and password before entering the application

On the Admin Home Page, Admin will select existing menus, such as *Dashboard, site home, site pages, my courses, course overview, mata kuliah, private files, online users latest badges, calendar, logout*. Admin dapat memilih sesuai dengan kebutuhan.



**Figure 2. Admin and lecturer login page**



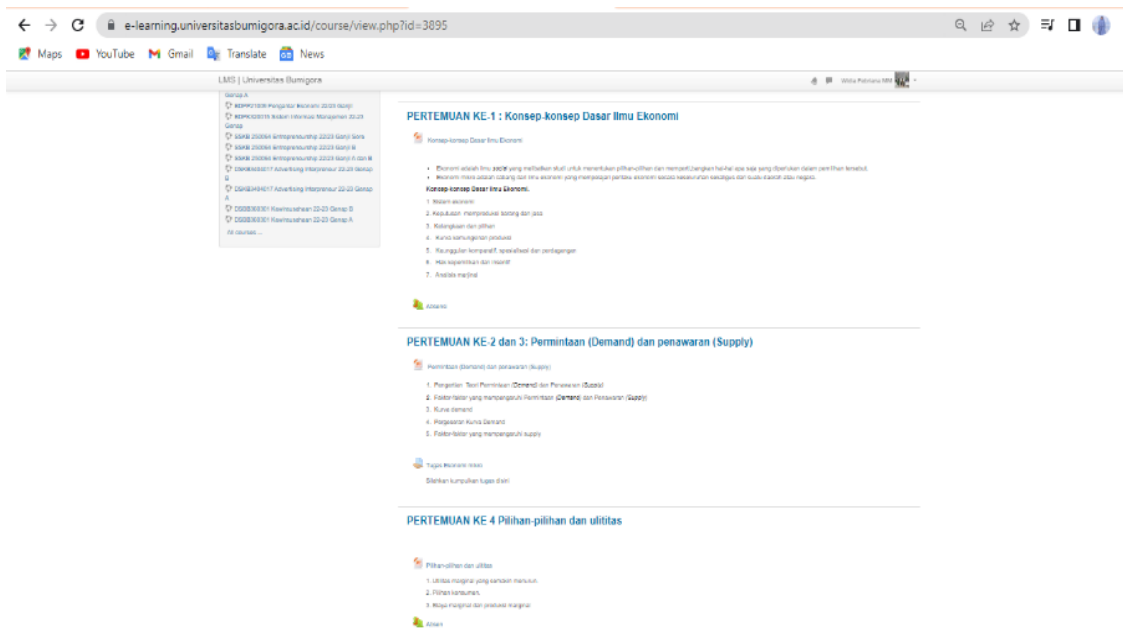
**Figure 3. Lecturer Home Page**

Figure 3 Teacher Home Page On the Teacher Home Page, the teacher will select the existing menus, such as Home, Size Setting, Logout, Class Management, Subjects, Materials, Quiz Management, Grades, and Edit Profile.



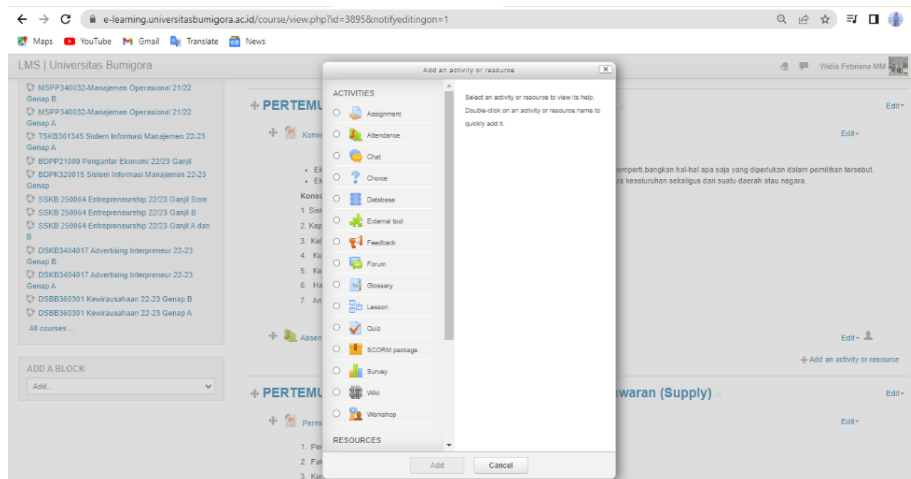
**Figure 4. Course page**

Figure 4. Course Page On the course page there is a course description, a recovery contract for one semester, including attendance, activeness, UTS and UAS. Contact personal of the lecturer in charge of the course, photo of the lecturer in charge of the course and email, data on the lecturer responsible for the course.



**Figure 5. E-leraning page 1 to 16**

This e-leraning page contains material from the beginning to the end of the course, including material that can be downloaded by students, digital attendance that can be filled in by students wherever they are, be it on campus or off campus, quizzes that can be accessed by students, discussion forums that can make it easier for students to channel their inspiration.



**Figure 6. Student and lecturer activity page**

This page contains assignments, a place for collecting student assignments in the form of pdf, word, video and audio.

*“The assignment activity module enables a teacher to communicate tasks, collect work and provide grades and feedback. Students can submit any digital content (files), such as word-processed documents, spreadsheets, images, or audio and*

video clips. Alternatively, or in addition, the assignment may require students to type text directly into the text editor. An assignment can also be used to remind students of 'real-world' assignments they need to complete offline, such as art work, and thus not require any digital content. Students can submit work individually or as a member of a group. When reviewing assignments, teachers can leave feedback comments and upload files, such as marked-up student submissions, documents with comments or spoken audio feedback. Assignments can be graded using a numerical or custom scale or an advanced grading method such as a rubric. Final grades are recorded in the gradebook”.

### **Attendance**

The attendance activity module enables a teacher to take attendance during class and students to view their own attendance record. The teacher can create multiple sessions and can mark the attendance status as "Present", "Absent", "Late", or "Excused" or modify the statuses to suit their needs. Reports are available for the entire class or individual students.

### **Chat**

The chat activity module enables participants to have text-based, real-time synchronous discussions. The chat may be a one-time activity or it may be repeated at the same time each day or each week. Chat sessions are saved and can be made available for everyone to view or restricted to users with the capability to view chat session logs. Chats are especially useful when the group chatting is not able to meet face-to-face, such as

- Regular meetings of students participating in online courses to enable them to share experiences with others in the same course but in a different location
- A student temporarily unable to attend in person chatting with their teacher to catch up with work
- Students out on work experience getting together to discuss their experiences with each other and their teacher
- Younger children using chat at home in the evenings as a controlled (monitored) introduction to the world of social networking
- A question and answer session with an invited speaker in a different location
- Sessions to help students prepare for tests where the teacher, or other students, would pose sample questions

### **Choice**

The choice activity module enables a teacher to ask a single question and offer a selection of possible responses.

### **Database**

The database activity module enables participants to create, maintain and search a collection of entries (i.e. records). The structure of the entries is defined by the teacher as a number of fields. Field types include checkbox, radio buttons, dropdown menu, text area, URL, picture and uploaded file.

External tool



*The external tool activity module enables students to interact with learning resources and activities on other web sites. For example, an external tool could provide access to a new activity type or learning materials from a publisher. To create an external tool activity, a tool provider which supports LTI (Learning Tools Interoperability) is required. A teacher can create an external tool activity or make use of a tool configured by the site administrator.*

#### **Feedback**

*The feedback activity module enables a teacher to create a custom survey for collecting feedback from participants using a variety of question types including multiple choice, yes/no or text input. Feedback responses may be anonymous if desired, and results may be shown to all participants or restricted to teachers only. Any feedback activities on the site front page may also be completed by non-logged-in users.*

#### **Forum**

*The forum activity module enables participants to have asynchronous discussions i.e. discussions that take place over an extended period of time. There are several forum types to choose from, such as a standard forum where anyone can start a new discussion at any time; a forum where each student can post exactly one discussion; or a question and answer forum where students must first post before being able to view other students' posts. A teacher can allow files to be attached to forum posts. Attached images are displayed in the forum post.*

#### **Glossary**

*The glossary activity module enables participants to create and maintain a list of definitions, like a dictionary, or to collect and organise resources or information. A teacher can allow files to be attached to glossary entries. Attached images are displayed in the entry. Entries can be searched or browsed alphabetically or by category, date or author. Entries can be approved by default or require approval by a teacher before they are viewable by everyone. If the glossary auto-linking filter is enabled, entries will be automatically linked where the concept words and/or phrases appear within the course. A teacher can allow comments on entries. Entries can also be rated by teachers or students (peer evaluation). Ratings can be aggregated to form a final grade which is recorded in the gradebook.*

#### **Lesson**

*The lesson activity module enables a teacher to deliver content and/or practice activities in interesting and flexible ways. A teacher can use the lesson to create a linear set of content pages or instructional activities that offer a variety of paths or options for the learner. In either case, teachers can choose to increase engagement and ensure understanding by including a variety of questions, such as multiple choice, matching and short answer. Depending on the student's choice of answer and how the teacher develops the lesson, students may progress to the next page, be taken back to a previous page or redirected down a different path entirely.*

#### **Quiz**

*The quiz activity enables a teacher to create quizzes comprising questions of various types, including multiple choice, matching, short-answer and numerical. The teacher can allow the quiz to be attempted multiple times, with the questions shuffled or randomly selected from the question bank. A time limit may be set. Each attempt is marked automatically, with the exception of essay questions, and the grade is recorded in the gradebook. The teacher can choose when and if hints, feedback and correct answers are shown to students.*

**A SCORM package**

A SCORM package is a collection of files which are packaged according to an agreed standard for learning objects. The SCORM activity module enables SCORM or AICC packages to be uploaded as a zip file and added to a course. Content is usually displayed over several pages, with navigation between the pages. There are various options for displaying content in a pop-up window, with a table of contents, with navigation buttons etc. SCORM activities generally include questions, with grades being recorded in the gradebook.

**Survey**

The survey activity module provides a number of verified survey instruments that have been found useful in assessing and stimulating learning in online environments. A teacher can use these to gather data from their students that will help them learn about their class and reflect on their own teaching. Note that these survey tools are pre-populated with questions. Teachers who wish to create their own survey should use the feedback activity module.

**Wiki**

The wiki activity module enables participants to add and edit a collection of web pages. A wiki can be collaborative, with everyone being able to edit it, or individual, where everyone has their own wiki which only they can edit. A history of previous versions of each page in the wiki is kept, listing the edits made by each participant.

**Workshop**

The workshop activity module enables the collection, review and peer assessment of students' work. Students can submit any digital content (files), such as word-processed documents or spreadsheets and can also type text directly into a field using the text editor. Submissions are assessed using a multi-criteria assessment form defined by the teacher. The process of peer assessment and understanding the assessment form can be practised in advance with example submissions provided by the teacher, together with a reference assessment. Students are given the opportunity to assess one or more of their peers' submissions. Submissions and reviewers may be anonymous if required. Students obtain two grades in a workshop activity - a grade for their submission and a grade for their assessment of their peers' submissions. Both grades are recorded in the gradebook.

**Book**

The book module enables a teacher to create a multi-page resource in a book-like format, with chapters and subchapters. Books can contain media files as well as text and are useful for displaying lengthy passages of information which can be broken down into sections.

**File**

The file module enables a teacher to provide a file as a course resource. Where possible, the file will be displayed within the course interface; otherwise students will be prompted to download it. The file may include supporting files, for example an HTML page may have embedded images or Flash objects. Note that students need to have the appropriate software on their computers in order to open the file.

**Folder**

The folder module enables a teacher to display a number of related files inside a single folder, reducing scrolling on the course page. A zipped folder may be uploaded and unzipped for display, or an empty folder created and files uploaded into it.

### **IMS content package**

An IMS content package is a collection of files which are packaged according to an agreed standard so they can be reused in different systems. The IMS content package module enables such content packages to be uploaded as a zip file and added to a course as a resource. Content is usually displayed over several pages, with navigation between the pages. There are various options for displaying content in a pop-up window, with a navigation menu or buttons etc. An IMS content package may be used for presenting multimedia content and animations.

### **Label**

The label module enables text and multimedia to be inserted into the course page in between links to other resources and activities. Labels are very versatile and can help to improve the appearance of a course if used thoughtfully.

### **Page**

The page module enables a teacher to create a web page resource using the text editor. A page can display text, images, sound, video, web links and embedded code, such as Google maps. Advantages of using the page module rather than the file module include the resource being more accessible (for example to users of mobile devices) and easier to update.

### **URL**

The URL module enables a teacher to provide a web link as a course resource. Anything that is freely available online, such as documents or images, can be linked to; the URL doesn't have to be the home page of a website. The URL of a particular web page may be copied and pasted or a teacher can use the file picker and choose a link from a repository such as Flickr, YouTube or Wikimedia (depending upon which repositories are enabled for the site). There are a number of display options for the URL, such as embedded or opening in a new window and advanced options for passing information, such as a student's name, to the URL if required. Note that URLs can also be added to any other resource or activity type through the text editor.

The e-learning system at Bumigora University aims to make it easier for teachers to carry out teaching and learning activities, while also making it easier for students to learn on campus. This application can convey information about assignments, courses, grades, and everything related to learning activities on campus to students. Students can also do assignments or quizzes anywhere and anytime. And teachers are easier to provide material and assignments. The next goal is for students to see the progress of their grades while at school. The final goal in this application is to avoid entering data by manualization. And this application helps lecturers to process data and enter student data.

In implementing bumigora university E-Learning application using PHP programming language with supporting software is Java Netbeans IDE 8.2 and for database storage using Php My Admin. The implementation was analyzed on bumigora university students.

### **Validation Test**

Instrument test of Tehnology Perception Variable (X1), Validity Test of Ease Variable (X2) on Interest in Using Variable (Y) is a validity test that shows the extent to which the measuring instrument used to measure what is measured, namely by correlating the score obtained on each question item with the total score of the individual. Furthermore,

validity testing using the SPSS for Windows Version 16 program, on 65 research sample respondents, obtained the results of Respondent Data Tabulation in the table below:

The results of the Respondent Data Tabulation are then summarized the total results of the data for each variable Instrument Test of Perception of Technology Variables (X1), Validity Test of Ease Variables (X2) on Interest in Using Variables (Y) into the table below Linear Regression Test.

After testing the magnitude of the influence of the independent variables (perceived information technology, ease of use, risk and service features) with the dependent variable (re-interest) together can be calculated through a multiple regression equation. Based on computer calculations using the SPSS (Release 16) program, the regression results are as follows:

**Table 3. Statistics Table**

		Statistics		
		Tehnologi (X1)	Kemudahan (X2)	Minat (Y)
N	Valid	65	65	65
	Missing	0	0	0
Mean		15.6615	16.1538	15.8769
Median		16.0000	16.0000	16.0000
Std. Deviation		1.71644	1.76095	1.70942
Minimum		12.00	12.00	12.00
Maximum		20.00	20.00	20.00

*Frequency Table*

**Table 4. Technology Table (X1)**

Teknologi (X1)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	1	1.5	1.5	1.5
	13	4	6.2	6.2	7.7
	14	19	29.2	29.2	36.9
	15	1	1.5	1.5	38.5
	16	19	29.2	29.2	67.7
	17	13	20.0	20.0	87.7
	18	5	7.7	7.7	95.4
	19	2	3.1	3.1	98.5
	20	1	1.5	1.5	100.0
	Total		65	100.0	100.0

**Table 5. Interest Table (Y)**

		Minat (Y)			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	2	3.1	3.1	3.1
	13	5	7.7	7.7	10.8
	14	10	15.4	15.4	26.2
	16	24	36.9	36.9	63.1
	17	18	27.7	27.7	90.8
	18	3	4.6	4.6	95.4
	19	1	1.5	1.5	96.9
	20	2	3.1	3.1	100.0
	Total	65	100.0	100.0	

*Regression*

**Table 6. Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.470 <sup>a</sup>	.220	.195	1.53344	.220	8.766	2	62	.000	1.626

- a. Predictors: (Constant), Convenience (X2), Technology (X1)
- b. Dependent Variable: Interest (Y).

**Table 7. Table ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.227	2	20.613	8.766	.000 <sup>a</sup>
	Residual	145.789	62	2.351		
	Total	187.015	64			

- a. Predictors: (Constant), Convenience (X2), Technology (X1)
- b. Dependent Variable: Interest (Y)

**Table 8. Table Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.964	2.240		4.448	.000
	Tehnologi (X1)	-.106	.115	-.106	-.923	.360
	Kemudahan (X2)	.469	.112	.483	4.187	.000

a. Dependent Variable: Interest (Y)

Perception Test of Linear Regression Results After testing the magnitude of the influence of the independent variables (perceived information technology, ease of use, risk and service features) with the dependent variable (re-interest) together calculated through a multiple regression equation, it can be interpreted as follows:

Multiple Linear Regression Formula		$Y = B + b_1 X_1 + b_2 X_2$
Model	B	$Y = 9.964 + (-0,106 X_1) + (0,469 X_2)$
Constant	9.964	
Tehnologi (X1)	-106	
Kemudahan (X2)	.469	

From the implementation of the results of the multiple linear regression analysis above, it can be described as follows:

- ✓ If elearning is not used as a digital elearning tool to make it easier for students to get material that can be accessed anywhere and anytime, so there is no value of technology benefits (X1) or convenience value (X2) to re-use elearning, then the predicted value of the results of re-interest in using elearning (Y) is 9.964.  
 $Y = 9,964 + (-0,106 X_1) + (0,469 X_2)$   
 $Y = 9,964 + (-0,106 \times 0) + (0,469 \times 0)$   
 $Y = 9,964$
- ✓ Every additional number of perceived value of technology benefits (X1) by 1 (one) point, there will be an additional decrease in the perceived value of re-interest in using elearning (Y) which is 9.858.  
 $Y = 9,964 + (-0,106 X_1) + (0,469 X_2)$   
 $Y = 9,964 + (-0,106 \times 1) + (0,469 \times 0)$   
 $Y = 9,858$
- ✓ Every additional number of perceived ease of use (X2) values by 1 (one) point, there will be an additional increase in the perceived value of re-interest in using elearning (Y) which is 9.495.  
 $Y = 9,964 + (-0,106 X_1) + (0,469 X_2)$   
 $Y = 9,964 + (-0,106 \times 0) + (0,469 \times 1)$   
 $Y = 10,433.$
- ✓ Every additional number of perceived value of technology benefits (X1) by 1 (one) point, and an additional number of perceived ease of use (X2) by 1 (one) point, the perceived value of re-interest in using elearning (Y) will be 9.389.  
 $Y = 9,964 + (-0,106 X_1) + (0,469 X_2)$   
 $Y = 9,964 + (-0,106 \times 1) + (0,469 \times 1)$   
 $Y = 10,327.$

The conclusion of the regression analysis carried out above can be made a real reference that the multiple linear regression of Y against X1 and X2 obtained is, that the influence of the perceived value of convenience (X2) is the perception that gives the greatest influence on the value of perceived re-interest in using elearning (Y)

because this is evidenced by the value of the contribution of additional influence on the value of perceived re-interest in using elearning (Y) is greater. Starting from this, it can be described in the graph every time the addition of the number of perceived value of re-interest in using elearning (Y) as follows.

### Concusion

The results of the objectives made after testing are carried out on the application, it can be seen that all functions in the application run well in accordance with the expected objectives. Admins in the application can manage user data and can convey information to users. The application can display student data such as Classes, Subjects, Materials, Assignments or Quizzes, and Grades. The application can store admin and user data, and can manage these data such as changing and deleting data. Users see data related to teaching and learning activities at school and users can also work on assignments or quizzes made by teachers. Users can also edit and delete their personal data or username and password.

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