Using Edmodo As A Virtual Class Learning Model In SMK Bakti Utama Merbau Mataram, South Lampung Regency

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ABSTRACT

The background of this research is to develop learning through internet media, which aims to build online class based virtual by using Edmodo application as supporting media of learning process. This study uses Rapid Application Development (RAD), which is used to develop an educational product. This method has a good level of validation because it is done through the stages of field trials and known level of effectiveness. The results show that building an online class based online by using Edmodo application can improve the motivation and quality of student learning. Based on RAD methodology, among others Bussiness Modeling, determine the related information in system development, Data Modeling determine who is involved in the development of learning system, Process Modeling shows the flow of information in the data modeling phase, Application Generation is using existing applications and Testing and Turnover.

Keywords: Virtual Classroom, EDMODO, Online Based

1. Introduction

SMK Bakti Utama is on the Pejuang '45 Street, Merbau Mataram Village, South Lampung Regency, Lampung Province. This Vocational School is under the auspices of Bakti Utama Education Foundation, with an accredited school status. SMK Bakti Utama was established in 2011, started operation in the same year with non permanent operational license 421/389/III.01/2014.

"Learn anywhere. Stay connected to your classroom, collaborate, and share content from your mobile device." Teaching is the main task of an educator (teacher, lecturer, tutor, or widyaiswarainstructor). Creative educators will always create ideas in designing a new learning system that enables learners to achieve their learning goals with a sense of satisfaction. In order to obtain the new learning system required method of development of learning system. Learning system development method is not much different from other product development method. The development procedure is shorter because resulting product is not too risky and the impact of the system is limited to the targeted learners.

In the conventional class, as a teacher and as a student, can be seen and directly interaction in the classroom. Any movement, activity and noises often interferefocus and concentration. From a teaching perspective, virtual classroom teachers can teach many people without having to shout, soothe the class, and so on. PowerPoints, Excel, Word, PDF files and even images and videos can be uploaded. Teachers are still dealing with students online, without being distracted. Teachers can set their own tariffs and going out teachingto the world, and start teaching online as a profession.

One of the model development learning is to create a virtual class-based social networking usingedmodo applications. Edmodo is a social learning platform for teachers, students as well as for parents/guardians developed in late 2008 by Nic Borg and Jeff O'Hara, who feel need to thrive in a school environment that reflects more global and connected world, both creating a tool or application that can close the gap between how students live their lives and how they learn in the school.
There are several studies that have been

conducted become referencesin this research, among others; "Effectiveness of Edmodo Media Usage as Supporting Activities of Basic Learning of Vocational Competence in SMK" is a research system developed by Ahmad Mufhidin. In this system one of the use of Edmodo media as a learning support activity is very effective used in the learning process Basic Vocational seen from the response and student learning outcomes. (Mufhidin, 2013)

"The use of Competence of physics learning media with e-learning based on Edmodo Blog Education on optical tool materials to improve responsiveness of motivation and student learning outcomes" developed by Ari Sudibyo, Wasis. This system gives students learning outcomes improved both in responding to the material and learning motivation as well as in student learning outcomes (Ari, 2013).

Optimization of E-Learning Edmodo on teaching and learning activities course Research Proposal and Seminar in English Education (Hadiyanto, 2015), where this study aims to optimize teaching and learning courses researchproposal and seminar using E-learning model Edmodo. Edmodo is easy and secure for a class to connect and collaborate, share content, videos, pictures, and access workmanship assignments, provide ratings and notifications.

"Development of EDMODO based E-Learning learning media on basic competence of digital signal data communication system through fiber cable and radio frequency in SMK Negeri 1 JetisMojokerto" (Singgih, 2015). This research developmedia that aims to produce media based on E-Learning using Edmodo applied to students of class XI TEI in SMK Negeri 1 JetisMojokerto. The material presented is material about data communication with media helping. This study is a development research that refers to the method of Research and Development (R & D) model. The results of this development research obtained from the validator assessment results indicate that the learning media is declared worthy of use and very valid.

2. Research Method.

The research method used in building Edmodo-based virtual class as a media of learning developmentexplained as:

2.1. Rapid Application Development Method

Rapid Application Development (RAD) is a process of linear sequential software development that emphasizes the development cycle in a short time, which is between 60 to 90 days. The RAD model is a "high speed" adaptation of the linear sequential model where rapid development is achieved using a component-based construction approach. If the requirements are well understood, the RAD process allows the development team to create a "fully functional system" in a very short period of time. Because it is used primarily in construction system applications, the RAD approach complements the following phases: business modeling, data modeling, modeling, application generation and testing and turnover. System users can clearly define software requirements and are willing to spend enough time communicating intensively with developers with respect to software development.

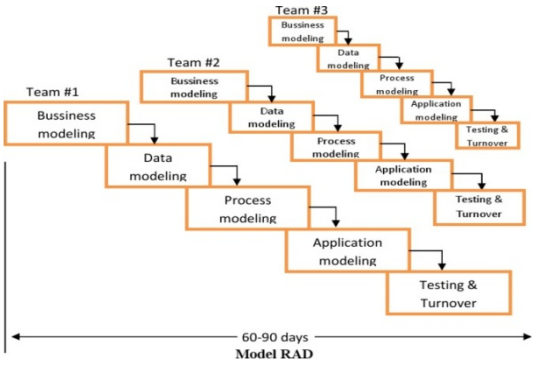

Figure 1. RAD Method (source Kendall, J.E. & Kendall, K.E. 2010)

2.2. Stages in RAD

The RAD method is used in the construction system application, hence emphasizing the following phases:

1. Bussiness Modeling
   This phase is to look for the flow of information as follows:
   a) The information that controls the process is the people who control the system.
   b) The information presented in this case is a school environment platform, between teachers, students and parents.
   c) Where is the information used? Edmodo is a social media platform like Facebook for schools can be accessed anywhere as long as there is an internet network, with social elements and educational applications based on social networking.
   d) Who processed it? It managed by teachers, students as recipients of the material and parents/guardians receive information on assessment results and monitor student activities.
2. Data Modeling
   This phase describes the data objects required in the project. Characteristics among others; teachers who process learning and students who receive materials and information learning materials.
3. Process Modeling
   The flow of information in the data modeling phase is transformed to obtain the necessary flow of information on the implementation of business functions. Processing was created to add, modify, delete or retrieve specific data objects.

RAD Process Flow

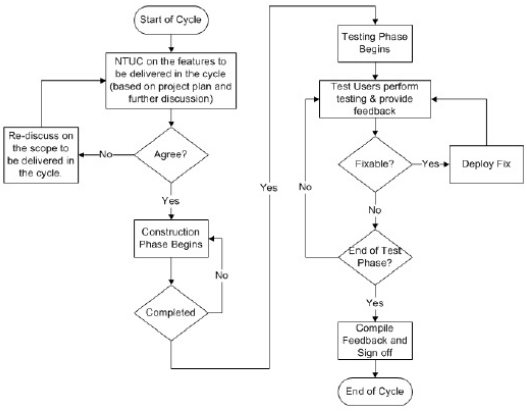

Figure 2. Rapid Application Development Process

Figure 2 illustrates the use of the Edmodo application in performing the NTUC process on the feature to be delivered in cycle form (based on later project deliberation plans), if it can not be approved then it is discussed again the scope to be submitted in the cycle whereas if it is approved, then the construction phrase begins. Furthermore, the phrase completion is checked, if not complete then the phrase re-construction is done, whereas if the complete condition is done the next test phrase the test user performs the test & give the next feedback is checked if it can be repaired then the deployment, but if not then whether the test phase ended? If fulfilled then the compilation of feedback and signing, whereas if not then returned to the test user and tested again.

4. Aplication Generation
   RAD also uses existing program components or creates reusable components. Tools can be used to facilitate software construction. Edmodo application, with website address:Hhtp:/Edmodo.com
5. Testing and Turnover
   Because reusing existing components, it will reduce testing time. But new components must be tested and all interfaces must be fully trained. Components obtained in the implementation of learning Edmodo applications. The results display student value can be exported into the form of

Ms. Excell.

2.3. Advantages of RAD Method

Some of the advantages of using the RAD method are as follows, according to Marakas (2006):

1. Time savings in the overall project phase can be achieved.
2. RAD reduces all the needs associated with project costs and human resources.
3. RAD helps develop applications that focus on project completion time.
4. Changes in system design can be more influential quickly than traditional SDLC approaches.
5. The user's point of view is presented in the final system either through system functions or user interface.
6. RAD creates a strong sense of ownership among all project stakeholders.

2.4. Weakness of RAD Method.

According to Kendall (2010), the lack of application of RAD method are:

1. Using RAD method, the analyzer attempts to speed up the project in a hurry.
2. Weaknesses related to time and attention to detail. Applications can be completed more quickly, but can not emphasis on company issues that should be directed.
3. RAD makes it difficult for inexperienced programmers to use this toolkit where programmers and analysts are required to master new skills while at the same time they have to work on developing systems.

2.5. Application of RAD Method

The RAD model adopts waterfall model and development in a short time implements:

1. Component based construction (component-based programming is not procedural).
2. Emphasis on reuse of existing software components.
3. Automatic / semi automatic program code generation.
4. Multiple teams, each team completes a single but not the same task.

The number of teams depends on the area and complexity of the system being built. This model involves a lot of teams, and each team does a different job. In accordance with the system module division, the system is divided into several modules and done by several teams in almost the same time within a specified time. If the requirements analysis phase has been complete and clear, then the time required to complete the software is in the range of 60 to 90 days. RAD model is almost the same as the waterfall model, but RAD has shorter development cycle in rapid techniques.

3. Discussion.

The RAD method is used in the construction system application, hence emphasizing the following phases:

3.1. Bussiness Modelling

This phase is to looking for the flow of information as follows:

a. Information that controls the process, among others:

Table 1. Comparison of Conventional and Edmodo Classes

Activities	Conventional	Edmodo of Applications
Application in learning	Without an Application	application is designed and safe to use
In managing learning.	Teachers manage classes directly in a room	Teachers easily manage the system because of practical features and easy to monitor and interact with students Online
Scope of learning	Master's face to face with the students	No one can enter Edmodo's room without an invitation from the teacher.
Interaction between students	Students who are interacted and physical cooperation	Students can not use to connect with foreigners.
Privacy in learning	The teacher is based on the class.	Teachers are easy to know if there are violations / intruders / strangers registered in the managed classes

b. The information presented in this form is;

1) Information that can provide the platform is an important aspect of a positive learning environment, in the form of performance results of tasks undertaken by students.
2) Giving students a pathway to interact with their colleagues and lecturers in an academic setting.
3) Can perform the standard measurement of student success.

c. Where is The Information Used?

Edmodo is a social media platform like Facebook for schools that can work more in accordance with the needs, so Edmodo can be accessed anywhere as long as there is internet network, either through PC, laptop / notebook, android based phones. Edmodo is an application that appeals to teachers and students with social elements and educational applications based on social networks.

d. Who Processed It?

1) This Edmodo application in its learning is managed by the teacher.
2) Students as recipients of materials and information about learning.
3) Parents/Guardians receive information on assessment results and monitor student activities.

3.2. Data Modeling

This phase describes the data objects required in the project. The attributes (attributes) of each data are identified and the relationships between objects are defined, among others;

- Teachers who process learning.
- Students who receive materials and information about learning.

3.3. Process Modeling

The flow of information in the data modeling phase is transformed to obtain the necessary flow of information on the implementation of business functions. Processing was created to add, modify, delete or retrieve specific data objects.

RAD Process Flow

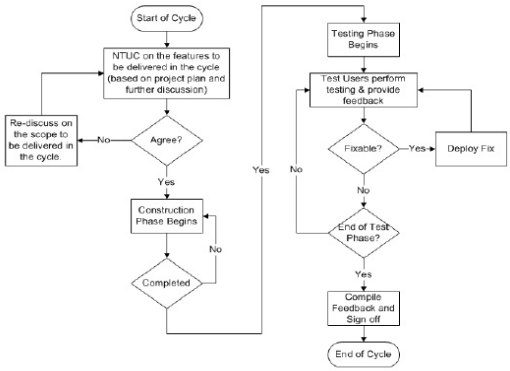

Figure 3. Rapid Application Development Process

On Figure 3, chart illustrates the use of the Edmodo application in performing the NTUC process on features to be delivered in the cycle (based on later project deliberation plans), if it can not be approved then it is discussed again the scope to be delivered in the cycle whereas if approved, then the phraseconstruction has begun. Furthermore, the phrase completion is checked, if not complete then the phrase re-construction is done, whereas if the complete condition is done the next test phrase the test user performs the test & give the next feedback is checked if it can be repaired then the deployment, but if not then whether the test phase ended? If fulfilled then the compilation of feedback and signing, whereas if not then returned to the test user and tested again.

3.4. Aplication Generation

RAD also uses existing program components or creates compulsory components. In this case the software used Edmodo application, with the following image display.

Figure 4. Edmodo Application

3.5. Testing and Turnover

Since reusing existing components, it will reduce testing time. But new components must be tested and all interfaces must be fully trained. Components obtained in the implementation of learning Edmodo applications. The results display student value can be exported into the form of Ms. Excell.

A	B	C	D	E	F	G
No	Nama				NILAI	
		UAS	ULHAR	MID	NILAI IPS	UA
1	Agnes Sindiani	75	75	90	**80**	9
2	Anah Rianah	70	75	95	**80**	6
3	Andre Helmi Yohanes	75	70	70	**72**	7
4	Angga Angga	75	70	70	**72**	6
5	Anggi Vidia Rosmatini	65	65	85	**72**	7
6	Ciska Siti Maimunah	70	75	70	**72**	7
7	Chindy Yuliantika	75	70	73	**73**	7
8	Dedeh Purningsih	70	70	78	**73**	7
9	Dwi Zulhijayani	70	70	85	**75**	7
10	Ernita Amelia	75	75	70	**73**	7
11	Hesti Ningsih	70	70	70	**70**	8
12	Irgi Wiratama	70	70	70	**70**	7
13	Irma Nurfitri	70	70	75	**72**	7
14	JamsiahJamsiah	75	70	75	**73**	7
15	Jepri Fuaji	65	70	95	**77**	7
16	Junaini Junaini	68	70	85	**74**	8
17	M.Maulana Yusuf	83	70	70	**74**	8
18	Mei Satiyani	70	70	85	**75**	7
19	Mila Armelia	65	75	90	**77**	8
20	Mita Puspita Sari	65	75	75	**72**	7

Figure 5. Exportexcell Results

4. Conclusion.

Some conclusions can be drawn as follows:

1) The results of this study can be used as input for teachers, which apply Edmodo as an alternative media in the development of learning in the classroom.
2) Edmodo has several advantages such as helping teachers build a virtual classroom based on real classroom divisions in schools, where there are assignments, quizzes and grades at the end of each lesson.
3) Learning can be done anywhere, anytime and can be done from any tool that supports.

This research can be an input for teachers where the application of Edmodo as an electronic learning media can improve students' ability in understanding the material, besides, the form of Edmodo display is very user friendly where the form looks similar to facebook, so users easily use Edmodo application. This research is expected to be an input for other schools, even not only the school environment but can be used at the academic level, so as to create a form of virtual classroom development process.

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