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DESIGN OF SOCIAL NETWORK LEARNING MODEL

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Abstract

Social network learning model is one of the learning model that aims to facilitate students' independent using web-based learning. Learning through group designed to give the link online materials, online assignments and tests online. Besides it also could open learning students by clicking on the E-learning menu. To view the status of the task set by the teacher, students can also view the status of their profile, by clicking the Profile menu. Chat menu is also provided for the students to ask the questions directly to the teacher if there is a problem with the lesson, or if the teacher is not online students can post questions in the message menu is available in the menu. The teacher as a facilitator in this case, which motivates students verbally and non-verbally (using social networking media learning). The work of students in the form of training, evaluation or questions and responses will be stored in the program are made, thus facilitate teachers to recapitulate the (correct) the student's work. In this paper will clarify how the steps in the design of social networking models MAN 3 Palembang.

Keywords: *Design, Social network learning, web*

INTRODUCTION

Educational technology is a field that includes the application of a complex and integrated process in analyzing and solving the problems of learning (Miarso, 2007:6). This means, in any problem solving involving people, procedures, ideas, devices, and organization. In educational technology, solving problems that manifested in the form of all the learning resources and designed or selected and used in the study purposes. One source of this study can be identified as a medium of learning. Instructional media intended course learning media suitable or effective for helping learning purposes.

The development of information and communication technology (ICT) in the recent years is growing by leaps and bounds. This changed the people's paradigm in the search for information that is not just limited to the newspapers, radio, and television, but also from the source virtual world (virtual). One very significant impact in the development of ICT is in the field of education, where the role of ICT as a medium of communication and information from teachers to students containing information on education, but it also means that the media is presenting an idea and the idea of the teacher in delivering educational material.

The tendency of the development of information technology, many of emerging social networks are much in demand by the public. Social networking is a social structure consisting of individual elements or organization. This network shows the way in which they are related because of the similarity of sociality, ranging from those that are known from daily life to the family. One of the most sought after social networking today is facebook. Facebook is a social networking service

that was launched in February 2004, which until now has more than one billion active users. Facebook users can create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. Additionally, users can join a group of users with the same interests, sorted by workplace, school or college, or other characteristics. As a developer of learning, researchers are interested in developing a web-based learning model are combined with social networking that is designed like facebook. It is expected to invite the involvement of students independently, actively and constructively in the process of their learning to the media, so expect the learning process of fun, creative, not boring.

PRINCIPLE DEVELOPMENT LEARNING MODEL

Models is something that describes a pattern of thinking. A model usually describes the overall concept of the inter-related. In other words, the model can also be viewed as an attempt to concretize and at the same time a theory is an analogy and representation of the variables contained in the theory (Pribadi, 2010: 86). In the opinion of Robins (1996: 25), "*A Model is an abstraction of reality: a simplified representation of some real-world phenomenon*." Purpose of this definition, the model is a representation of some phenomena in the real world. So, from these definitions it can be concluded that the model is a process of thinking and the components contained therein, which is represented in the form of graphic and / or narrative.

There are several models according Miarso (2003) including: 1) conceptual model, 2) procedural models, and 3) physical models. Conceptual model is basically the conceptualization theories or in other words, the embodiment of a theory. Procedural models have the means to provide prescription prescriptive nature of how something. Procedural model is essentially a manifestation of the stages of the formation of a model. While the model is a physical model in a physical form (product). In developing a model of web-based learning need to consider the needs of learning, namely: a) student centered learning, b) learning by doing; c) life-long learning; d) collaborative learning, e) problem based learning; f) creative learning; g) self-learning motivation. (Anonim, 2012)

THE CONCEPT OF WEB-BASED LEARNING MODEL

Development of information technology very fast nowadays, especially the development of internet technology, have promoted the development of the concept of web-based learning model. Characteristics of Internet technology can always be accessed anytime, anywhere, multiuser, and offers all conveniences, have made the Internet a perfect medium for the development of web-based instructional model. Web-based instructional model is a learning activity that utilize media site which can be accessed through the Internet. Web-based instructional model is one type of application of electronic learning (e-learning).

E-learning is a term that refers to the learning that takes place through electronic media (computer) connected to the network. E-learning content using the media in the form of text, images, animations, video, and others. E-learning can also be applied face to face learning, for example, using video, audio, CD-ROM, and others. So e-learning is a process and implementation of web-based learning activities, computer-based learning, virtual classroom. These materials in e-learning activities are mostly delivered via internet, intranet, video or audio tape, interactive television, satellite, and CD-ROM.

Web-based instructional model is one form of e-learning, where the material (content) and how to deliver the learning using the internet. Therefore, web-based learning model is a learning experience by utilizing the Internet to communicate and convey information learning. In general, there are three possibilities in the development of web-based learning model, namely:

Development of web-based learning model where students and teachers are completely separated, and no need for face to face learning process.The whole teaching materials, discussion, consultation, assignments, exercises, exams, and other learning activities delivered entirely over the Internet. In other words, this model uses the remote system;

Development of web-based instructional model that combines distance learning and face to face (conventional). Most of the material delivered via the internet, and some face to face, which serves to complement each other. In this model, teachers can provide instruction for students to learn the course material via the web that has been made. Students are also given direction to look for other sources of relevant websites. In face to face, students and teachers discussed more about the findings of material that has been learned through the internet;

Development of web-based learning model that only use the Internet to support the promotion of quality learning done in class.Internet function is to provide enrichment and communication between students and teachers, fellow students, members of the group, or students with other resource persons. Therefore, the role of teachers in this case are required to master the technique of searching for information on the internet, guide students seek and find sites relevant to learning materials, presents the material through the web of interest and the interest, guidance and communication service via the internet, and other skills necessary.

Web-based learning model that was developed at least the following elements: a) the center of student activities; b) the instructional material; c) the interaction in the group; d) administrative systems to individual needs; e) the public information; f) of training and evaluation; g) the online material outside the subject matter.

NETWORKED LEARNING

The impact of advances in the information technology and communication, the virtual classroom facility can replace the conventional learning of infrastructure. The teachers could be sitting in the office when the students diligently listening to the lesson on the monitor networked via Internet. The virtual classroom is a new way of learning that is more advanced, all activities conducted in multimedia media. For example: a) Face to face with educators through video conferencing facility or via the phone's tiny screen facility of 3G technology, b) Group discussions were conducted simultaneously in the virtual facility on the internet can be through video conferencing, chat, mailing list or forum; c) The subject matter is presented in the form of pictures, streaming video, power point or simulator.

Networked Learning presents flexibility of space and time. Students can study anywhere and anytime, it means that anytime can take advantages of networked learning. The track online on virtual world allows the students to learn and discuss with their friends from all over the world. At the same time ask the top experts in the other continents, either through group discussions or private consultations via e-mail

and internet messenger. Multimedia facilities, it also gives students opportunity to obtain the subject matter is much richer than traditional text books. For example: the wave motion can be simulated in three dimensions and the sound waves can be displayed simultaneously.

Interaction in networked learning is an important element in the implementation of web-based learning. But here is the interaction between people but not the interaction between students interactive with the material. In the web-based learning, the teacher controls the interaction and control, with limited times, teachers must be able to ensure that students can understand the material is delivered. The most important thing we can do in a process of learning is through interaction.

Networked learning offers a lot of opportunities to interact. In fact, the task or discussion can be done more easily in a networked learning than in conventional classes which may require rearrangement of the tables and so forth. Interactions that occur in a networked learning can mean the interaction between students and teachers, the interaction between students and the media, the participation of students in a discussion, or collaboration among the students themselves.

LEARNING STEPS OF SOCIAL NETWORK DESIGN
Design model will be presented in the article is kenseptual models and procedural models. Conceptual model is the embodiment of the theory and principles related to web-based learning. While the model is a form of procedural stages of the formation of a web-based learning website.

Conceptual Model
Conceptual model in this study is designed with the features of functional processes that can be utilized by the user to run a web-based product learning model, which is adapted from the model 3P (User, Process, Product). The users are parties or people who use web-based learning models, processes associated with the ability of web-based learning model in performing certain functions, while the products are different forms of service that can be utilized by the user through a process that is run by a web-based learning model.
Every aspect of the construction of models 3P has several components in web-based learning model. The users in web-based learning model includes students, teachers, administrators, and the public. It means that the system must be supported with features to manage user settings that role with some kind of authority respectively.

Teacher is a user, which can also double as an administrator. Administrators act as maintenance of web-based model development. Teachers have an important role in managing the material, learning, content, sequels and navigation, training and evaluation, assessment, delivery, and users. Students as users are given the freedom to learn as individuals or groups, by first selecting the option to log in to one person or two people or three people. General users who are not enrolled in web-based learning models, can only enjoy the public services provided, such as articles, learning materials, and links to sites of the learning.
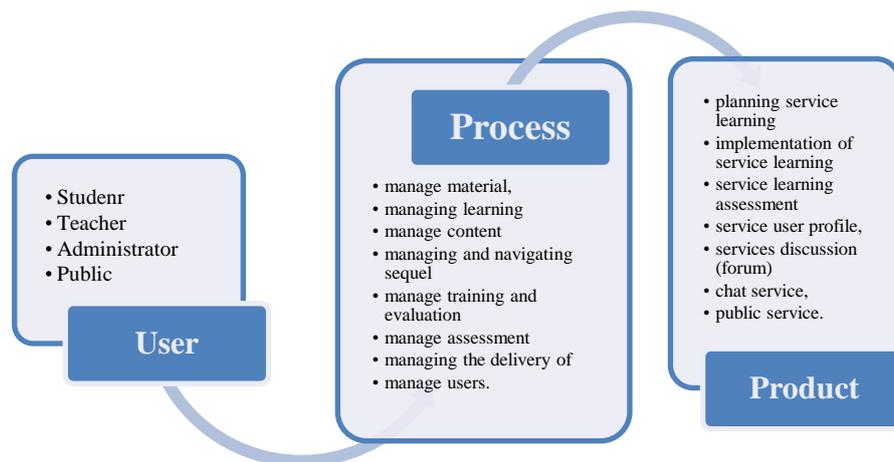
Figure 1. Conceptual Model Components

In the model of represents 3P, web-based learning model must be constructed with an architecture that can be understood, the user can use a variety of product services web-based learning model with the proviso that the web-based learning model is able to run all the components of the functional process models. If one component of the process can not be executed then the service provided to the user can not be maximal.

Procedural Model
Design and development of procedural modeling in this study using the model of Dick and Carey (2005). Design models are divided into four series of activities, namely: identifying stage, stages develop, evaluate and revise stage, stage models implimention. In this article will only describe the stages of identifying and developing stage.

a. Identify Phase
The first step in planning a social networking model of learning is a preliminary study to identify the existing problems, so it can determine what steps should be taken. In the analysis of the results of preliminary studies conducted sharing with colleagues / teachers and students at MAN 3 Palembang, analyzing web-based learning model that has been there, and analyze syllabi and handbooks. The results of this preliminary study as a basis for the identification stage design of web-based learning model.

The next step to identify the learning needs and write the common learning goals, learning analysis, identify and analyze the characteristics of the student behavior that is tailored to learning outcomes. This information will be very helpful in designing instructional designers. It is important to analyze the characteristics of students covering the general characteristics of the students, the basic competencies that students need to have (knowledge, skills and attitudes), and student learning styles. The following description of the results of the analysis conducted by researchers:

Sharing results with colleagues / teachers and students
Sharing with colleagues carried out to obtain the mathematical learning model berbass website to suit your desires and easy to use for teachers and students. Sharing results with colleagues / teacher input materials obtained are difficult to

explain in conventional learning is trigonometry and calculus. It is because there are formulas that must be mastered by the students. In addition to providing material particular example trigonometry, students have difficulty in determining the angle that is not a special angle. By sharing with peers / teachers also found that web-based mathematical learning model that exists today does not have a space of interaction between teachers and students and students with students. Most math websites that exist today have not been designed for learning. Material or sample questions were text (such as in the form of paper-based) or in a flash format that can be downloaded. Teacher can not see student ability because webiste is not designed to record the students' learning outcomes.

Discussions with SMA / MA State Palembang known that learning website that there has not been utilized for optimal learning. Formal services on the website do not give rise to interest students learning to access the website. Just learning website contains material which has not been prepared for any meetings so boring for students.

Mathematical learning model analysis results based websites
The analysis of mathematical models of web-based learning begins with a look at the website and learn the lessons that have been around on the internet and discussions with expert website. Based on the search results, there are several web lessons are available, as http://www.cerdaskreatif.com, http://www.belajar-matematika.com, http://www.mgmpmatematikadki.org, http://istiyanto.com, http://www.jagoanmate matika.com, and so forth. Learning website has provided a space for visitors to download the material, lesson plans, and the articles, especially math. However, these sites have not been fully designed for learning. It is seen questioning the lack of space between teachers and students and students with students, and specific to the material presented in each learning sessions. In addition, the lack of the student pages are specially designed to be space for the student profile. Moreover, from a few websites that have an analyzed existing information systems assessment, assignments and student activities.

Results of analysis mathematics syllabus and handbook
Based on the analysis results with peers/teachers and students, the materials developed in the mathematical model of web-based learning is a matter of trigonometry for class X and class IX IPA. Analyzed syllabus is syllabi issued by the National Board of Education Standards. In the tenth grade material trigonometry topics include: Using the comparison, functions, equations, and trigonometric identities in solving the problem. While in class XI Science trigonometry topics include: Lowering the trigonometric formulas and the use of comparative trigonomotri. Material development in web-based mathematical models pembelejaran, researchers will work with teachers to review the textbooks of mathematics, especially trigonometry material. Textbooks will be examined to look for materials and examples of the application of trigonometry to suit the needs of students. The material was developed using trigonometric contextual approach according to students' everyday lives.

b. Developing stage
After doing stage identified, followed by determining the specific learning objectives, define the reference benchmark tests, and then choose the method, media and

strategies that will be used. This allows the interaction between students and students, students with media, and students and teachers. The material to be applied is a matter of mathematics that can be discussed further.

The next stage designer is to design learning materials that will be used in the form of interactive web media. The designed interactive learning materials, so that students can be motivated in learning. In the design process include process design purposes, flowcharts, storyboards, user interface design, and system integration. Flowchart is a graphic depiction of the steps and procedures of a program sequence. Storyboard rather like comics that we read every day. On each page shows the development of the story or information (Vaughan, 2011). Storyboard is a summary of adaptation functions and tools that should be used in making models of web-based learning in math.

Furthermore, in the design of the user interface, the teacher as a facilitator in this case, which motivates students verbally and non-verbally (using web media). The work of students in the form of training, evaluation or questions and responses will be stored in the program are made, thus facilitate teachers to recapitulate the (correct) the student's work. Web designed also to be able to use one computer for two or three students. Learning strategy is also designed using cooperative learning methods, so that students feel motivated by the presence of a teacher in a virtual classroom.

Active student involvement indicates whether the media is used effectively or not. Designed to make learning activities that allow students to apply knowledge or new skills and receive feedback on the suitability of their efforts before and after learning. Training is provided independently in each material is independent evaluations that may provide feedback. This feedback will be automatically recorded in the program, so teachers can evaluate students' abilities. The next step to make social networking web learning based on the stages that have been done.

SOCIAL NETWORKING WEB LEARNING

The following is a social networking web interface that has been socialized in MAN 3 Palembang, in math.
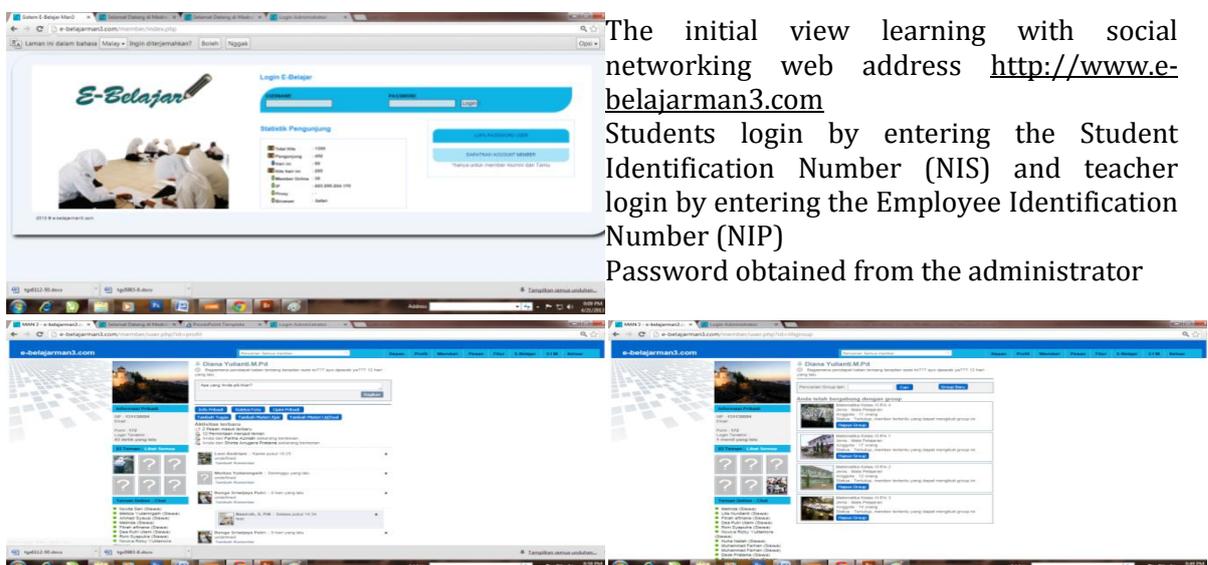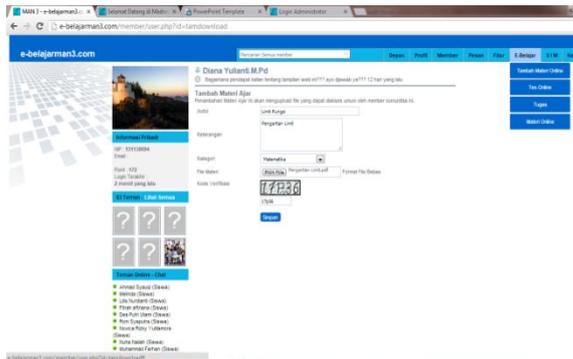

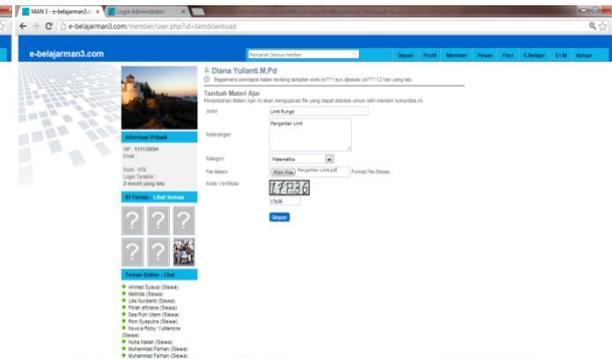The initial view learning with social networking web address http://www.e-belajarman3.com
Students login by entering the Student Identification Number (NIS) and teacher login by entering the Employee Identification Number (NIP)
Password obtained from the administrator
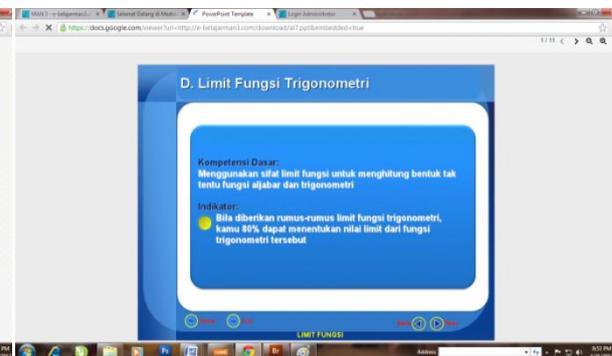
Display menu of teachers

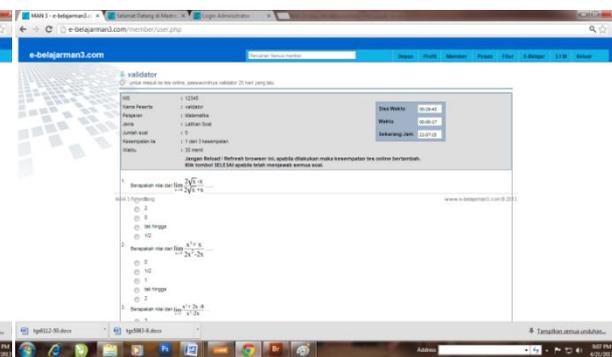Display the learning group created by teachers
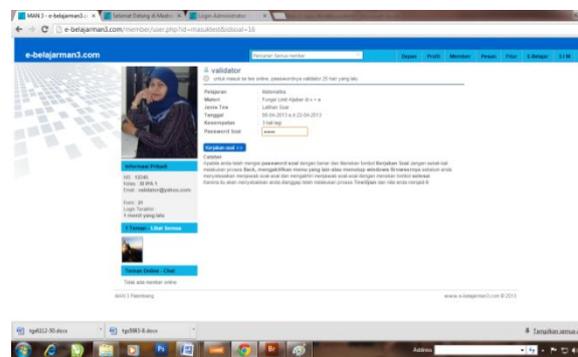

Menu e-learning

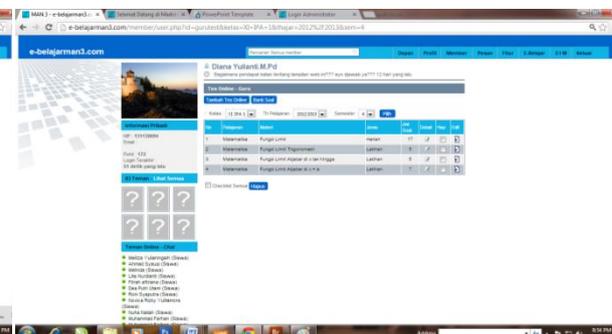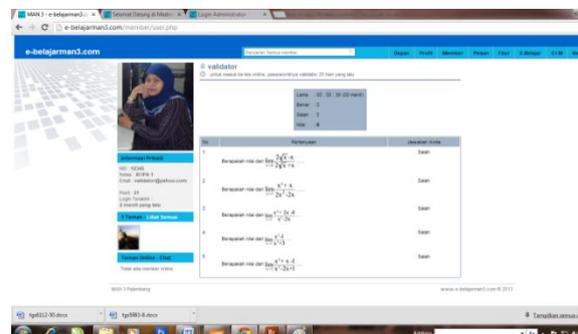Teacher adds learning materials

Online Material

Display materials online

Display online entrance test

Online Question Test

Online Result Test

Online Sets Test

CONCLUSION

Design of social network learning model is one model of learning that can be implemented by combining the advantages of direct interaction and the use of internet technology. Social network learning model can work well if the interaction and collaboration among the parties involved (ie teachers and students) is controlled and dynamic. In practical terms, a social network learning model offers a variety of techniques and tools of the material that can be used to allow interaction and collaboration during the learning process takes place. To maintain quality and control over the learning process conducted, the teacher must be able to choose the methods and the proper visualization tools in order to maintain students' motivation to contribute and interact with the material presented by the teacher. Teachers in this case as fasilitator, which motivates students verbally and non verbally (using media website). The work of students in the form of training, evaluation, or questions and responses will be stored in the program are made, to facilitate teachers to recapitulate (correcting) the work of these students. Implementation of web-based instructional model offers very promising opportunities for the development of a new learning model that is more exciting, interactive, dynamic, hi-tech, and controlled.

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