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CONCEPTUAL MODEL IDENTIFICATION OF PERSONAL LEARNING ENVIRONMENT

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Abstract: The education system has been regarded as traditional education, tend to follow the pattern of the approach is made suitable for all the students in learning the characters. There are new opportunities in the development of a learning environment that is more likely to reward the individual in a supported learning with information and communication technologies are evolving rapidly today. This study will look at a variety of learning environments shifts occur both learning and performance today. This study developed a new model of learning with a personalized approach to learning environment to improve learning performance.

Keywords: mobile, personalized, e-learning

The education system has been regarded as traditional education, tend to follow the pattern of the approach is made suitable for all the students in learning the characters. In addition to learning long learning tends to be identified with an activity that all students are in the class despite having different interests and attitudes on a particular subject matter or theme. This lack of flexibility in learning that will affect the performance of learning is primarily associated with motivation.

With the current technological developments, including the results of research on motivation to learn the latest, award the desire and attitude to learn to be much better with a variety of media facilitated learning and learning resources are much more easy and diverse. Conditions change in the learning environment that encourages the emergence of a more personalized learning approach known as personalized learning environment. With this approach to learning, it is possible to determine the individual's own purposes and in designing good learning associated with learning, learning targets, learning resources, peer learning, teaching materials, and a variety of other elements to build a more convenient learning interactions and build motivation.

From the introduction, there has been a new opportunity in the development of a learning environment that is more likely to reward the individual in a supported learning with information and communication technologies are evolving rapidly today. This study will look at a variety of learning environments shifts occur both learning and performance today. From this study are expected to be able to develop a new model of learning with a personalized approach to learning environment to improve learning performance.

Learning Environment

Currently the school is no longer a dominant place to learn. Learners are now learning about the universe and all phenomena from various sources, both in the home, community, and from anywhere in a way that is much different from the past (Skrabut) (Fiedler & Våljataga). There are several major trends in the learning environment that affect how learning today, namely: 1) the occurrence of virtualization; 2) theme-based learning, and 3) personalized learning. With some of these trends will provide new understanding that there is a rather vague distinction between formal schools with a flexible learning environment, access to almost the full range of knowledge required for learning that allows to learn outside of school, and the control of what and how they learn in learner's own hands.

Virtual Learning

Various services in various fields of study skills and specific competencies can be obtained easily online (Skrabut) (Chatti, Agustiawan, Jarke, & Specht, 2010). Service learning is available on a variety of levels from the most basic to the most advanced. As well as in various areas are very scattered. The virtual schools can offer activities through e-learning, n-learning for both activity and learning materials for laboratory purposes or not. Teachers will facilitate learning activities will monitor the progress of online learning and also help to provide feedback. There are some services in the online schools, namely: 1) services that deliver content to support learning with formal learning school. on this service students will not receive a diploma; 2) services that replace formal learning school. on this service students will obtain a diploma.

In this study there are several advantages virtual expected to be recovered managers and students. On the management of virtual services will benefit with reduced operating costs per student, the class that is no longer limited to a maximum number of students, a wider range of access. On the student side, the service also provides a more flexible approach to learning in time and materials and competence, collaboration among a wide variety of institutions; equity is a much better learning, the provision of services that suit particular needs (Wolf, 2010) (Clarke, 2003).

Nevertheless, there remained a long discussion about this learning virtualization mainly on aspects of integrity. Some say that the virtual learning will be difficult on monitoring, and the need to control the discipline in learning. After all this, virtual learning will be a trend that will help transform the learning patterns of society in the future.

Thematic learning

Learning innovation happening nowadays with learning resources which are many and varied, allowing the development of learning based on a theme as the focus of the study. This focus can improve motivation and interest in learning in a particular subject matter.

Development of the project -based curriculum into a form allows the passage of this thematic learning. Many services are provided a specific focus such as in robotics, mathematics, automobile, industrial management, entrepreneurship, and other topics. Study groups can be developed across institutions using a thematic approach that facilitated virtual learning.

In this learning can be done learning with individual and group projects are guided by the virtual tutor where all arranged through an algorithm that establishes a variety of learning activities are carried out. This will certainly affect the design of the curriculum developed. Certain scientific community connected virtual network can be a rich source of information to learn the scientific theme or particular expertise. It is also commonly found in massive learning services at this time.

Personalized Learning - Self Directed Learning

Facing such a fast changing environment, there is a tendency of parents who become dissatisfied with the formal learning system that exists today. Formal learning is perceived as a process that only leads to mastery of the material but weak on developing competencies and capabilities. These new expectations encourage educators and parents to deconstruction the existing education system, add, and reduce the pieces of the education system and then unite into a new system that can be completely different from the previous system. These ideas might also form part of the emergence of some of the concepts of postmodernism.

The results of the discovery in a variety of educational research show that the new approach allowing a child to develop naturally great driven by their own interests. They can find a wide range of knowledge through independent thought and experience in the real world.

Concepts such as un-schooling, de-schooling, unbundling, even homeschooling will have a role in the formation of a more personalized learning environment. With access to information and knowledge very easily, will allow each learner constructs their own learning environment. They will create a pathway to develop their own knowledge and experience to be something that is beneficial to their own future. Learning becomes something more organic that does not look as stiff as the formal education system at this time.

This optimism also raises many questions such as where the children will be every day. How can we measure the progress of their learning? Who will be responsible in the learning process like this? How can the sustainability of their learning? All these questions will be a discussion about how to do curriculum development.

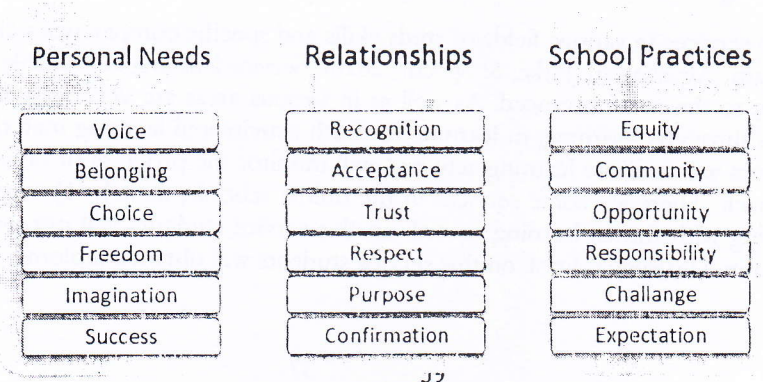


Figure 1. Personal Needs and School Practice Interaction

Interaction of School and Personal Needs

In the use of information and communication technology, there are several critical factors that will affect the success of mobile learning to support personalized learning environment (Cochrane, 2013). Six critical success factors of the implementation of this study are as follows:

- a. How does the integration of technology into learning and assessment system.
- b. How do teachers modeling using learning tools used
- c. How to develop a supportive learning community.
- d. How to do the right choice of mobile devices and the related web 2.0
- e. How to determine which instructional technology support as needed by the individual in the constructivist learning paradigm.
- f. How to create an ongoing interaction that supports the learning process of re-conceptualization.

To ensure the success factors are going well, there are two aspects to consider in a personalized learning environment, namely the individual needs of students and aspects of school practices to be applied. Clarke identifies several aspects in both cases as shown in the following figure (Clarke, 2003). The identification will be obtained from the relationship between school's practices are expected to support the development of flexibility and learning on the other hand is related to students' personal needs with development needs, talents and aspirations of individuals. The interaction and relationship between school practices and needs individual will appear on the activity of the acknowledgment, acceptance, trust, respect, purpose and usefulness, as well as confirmation of performance. Figure 1 shows how these elements relate.

Student And Teacher Interaction

Networking among Students and Teachers

With technology development based on learning of information technology and communications, the activity of the teacher and the student will be a connected network with other students, other teachers both at the same school and also different schools and across territorial countries (Chatti, Agustiawan, Jarke, & Specht, 2010). This interaction will use a variety of communication media available to the virtual world such as blogs, wikis, social networking media, online communities, bookmarking, content developers and others that ultimately require the skills and abilities of teachers and students in decision-making in designing activities and interact (Palmér, Sire, Bogdanov, Gillet, & Wild, 2009).

In this learning network, which is also the basis for the PLN (personal learning network), the network is an informal nature. The network consists of the learners either of them as students and teachers, as well as the professionals who interact and develop new knowledge. In this network everyone can connect with others on the same desire to learn. This interaction will by itself contribute to the professional development and knowledge both sides. In addition, both parties do not need to know each other personally. In the interaction, learners can use the media that can vary according to the interest of each (Chatti, Agustiawan, Jarke, & Specht, 2010).

The role of students and teachers

In a personalized learning environment there are a few things that need attention, especially in autonomous learning and the ability to manage individual (self - regulated learning). Two things into something significantly enhanced bullet. It should also be noted that an increase in responsibility and control that exist in students is not always the same as the increase in their motivation. Their active role in navigating on the virtual world to make decisions about how to look for, where to look, what to selected content related to the business and improve their understanding of the specific competencies. Compared with the class during the run in which the teacher imparting knowledge and students responded learning, personalized learning environment that students are comfortable with the old ways will experience frustrating at first because of the inability to perform self-regulation.

On the other hand, teachers also will be challenged to provide a balanced environment between structure learning and learning autonomy in facilitating the learning process more personalized. The role of the teacher as a facilitator for strengthening student centered learning will push up the scoring system different learning success. Teachers can play a role in facilitating the search the provision of relevant material for student learning, the coordinating student learning projects performance, to moderate discussions of students, providing consultation in solving problems and finding solutions in the learning performance tire line with the curriculum.

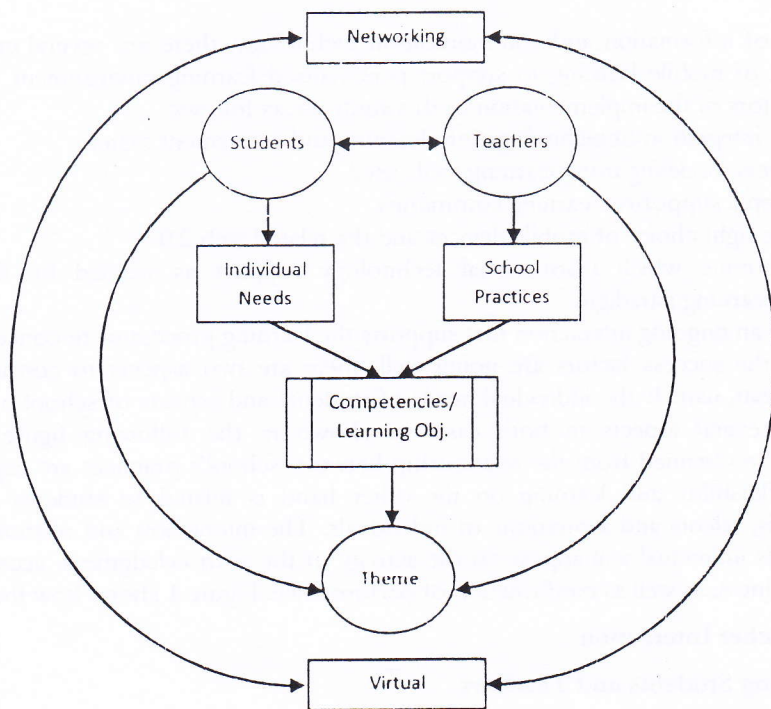


Figure 2. Conceptual Model of Personalized Learning Environment

Interaction Model

With some studies are important elements in personal learning environment, can be described a conceptual model related to it as shown in Figure 2 below. From the diagram it can be seen that the students and teachers in changed interaction, that the teacher is a facilitator for students. Teachers need to be able to translate the interests related to school education through a curriculum that used be a learning goal is a set of competencies that will be owned by the students in anticipation of changes in society

On the other hand, students with autonomy based on the individual control of self directed learning needs to steer individual needs into competence appropriate to the learning objectives. Activities to achieve the competencies and learning objectives can be organized based on certain themes more dynamic. The interaction between the teacher - student - learning activities is happening in the wider environment as a network between schools and also learns some vital lessons across territorial. All of these activities are done virtually flexibility that allows for a variety of network learning with others.

Conclusion

Lack of flexibility in learning is a prayer because the learning performance is primarily associated with poor motivation. With the current technological developments, award the desire and attitude to learn to be much better with a variety of media facilitated learning and learning resources are much more easy and diverse. Conditions change in the learning environment that encourages the emergence of a more personalized learning approach known as personalized learning environment. With this approach to learning, it is possible to determine the individual's own purposes and in designing good learning associated with learning, learning targets, learning resources, peer learning, teaching materials, and a variety of other elements to build a more convenient learning interactions and build motivation. There are a variety of shift in perspective and the role of interaction between students, teachers, and learning activities are carried out. With a conceptual model that has been described, we can be developed personal learning environment that utilizes the latest information and communication technology in achieving the performance of learning more relevant to the real world based on individual competencies.

References

- Chatli, M. A., Agustawan, M. R., Jarke, M., & Specht, M. (2010). Toward a personal Learning Environment Framework. *International Journal of Virtual and Personal Learning Environments*, 1(4), 66-85.
- Clarke, J. (2003). *Changing Systems to Personalize Learning*. New York: Brown University.
- Cochrane, T. (2013, November 11). *Secrets of Mobile Learning Failures (#mlearning)*. Retrieved January 8, 2014, from Classroom Aid: <http://classroom-aid.com/2013/11/11/secrets-of-mobile-learning-failures-mlearning/>
- Fiedler, S., & Välijataga, T. (n.d.). Retrieved January 13, 2014, from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.185.1273&rep=rep1&type=pdf>
- Palmér, M., Sire, S., Bogdanov, E., Gillet, D., & Wild, F. (2009). Mapping Web Personal Learning Environments. *Proceedings of the Second International Workshop on Mashup Personal Learning Environments (MUPPE09)*. France: Acropolis Palais des Congres.
- Skrabut, S. A. (n.d.). *Personal Learning Environments: The Natural Way of Learning*. Retrieved January 13, 2014, from http://www.uwyo.edu/skrabut/docs/aded5050_project.pdf
- Wolf, M. A. (2010). *System [Re]Design for Personalized Learning*. Washington: Software & Information Industry Association (SIIA).