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The development model of learning through virtual learning environments (VLEs) for graduated students, department of educational technology, faculty of education, Kasetsart University

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Abstract

This research aims to develop the model of learning through Virtual Learning Environments (VLEs) for graduated students that study in Department of Educational Technology, Faculty of Education, Kasetsart University which divide into two stages: the first stage is to study the appropriate model of learning through Virtual Learning Environments (VLEs) and the second stage is to develop the model of learning through Virtual Learning Environments (VLEs) for graduated students. The participants are master degree students (regular and special program) that study in Department of Educational Technology in 2014 academic year and divide into 2 groups (control and experimental group). Research tools are: analysis and synthesis data form, student's satisfaction questionnaire, self-directed learning skill measurement. Data are analyzed by Arithmetic mean, Standard Deviation (S.D.) and T-test.

Research findings show that the model of learning through Virtual Learning Environments (VLEs) for graduated students that study in Department of Educational Technology include the 4 main elements: 1) Learner, 2) Collaborative Learning, 3) Self-Directed Learning skill, and 4) Online Learning Environment. Finally, in the first stage show the appropriated model which is the "Prototype" that can be developed into the system of Virtual Learning Environments (VLEs) in the next stage.

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Keywords: Virtual Learning Environments (VLEs), Self-Directed Learning skill, Graduated student

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Nomenclature

A	Virtual Learning Environments (VLEs)
B	Self-Directed Learning skill
C	Graduated student

1. Introduction

The graduated student quality is the needs factor to student achievement development. Quality ongoing professional development contributes to student growth and success. The student's learning style has been changed: from Gen. X to Gen. Y and to Gen Z. The quality content and resources that are available to teachers from any place and any time, and the diversity channel of learning that can help student to get their knowledge that can deliver relevant, accessible, and ongoing support has stimulated the development of online teacher professional development programs. The limited learning environment to let student to get opportunity to exchange and share knowledge is decreased between them in real situations. Online teacher professional development programs make it possible for educators to communicate, share knowledge and resources, and reflect via asynchronous interactions. Online learning courseware and Virtual world programs can make it possible for student to learn has no limit and to communicate, share knowledge and resources. Moreover, Dabner (2011) suggest that the many current ICT-supported reform efforts demand teachers to assume the role of epistemic facilitator of knowledge construction supported by technology. In addition, Davis et al. (2011) explored the characteristics of such technology training programs were discussed to help students learn how to use technologies as instructional tools to enhance their teaching and students' learning. The condition of education in Thailand today still has several problems. Especially, the quality of learners seems shortages (Secretariat of the Council of Education, 2010: 53). Along with the lack of pedagogy skills that is not match in the actual practical needs for higher education. Particularly, the lack of the self-directed learning skill of graduate students to use that knowledge management let the opportunity to exchange and share knowledge is decreased between them and focuses on the upstream of training from real situations process furthermore, Lee, et al (2010) have suggests that the common difficulties and limitations regarding the implementation of knowledge management into classrooms cultures. In addition, Erkunt (2010) exhibited that students' collective inquiry relied on socially distributed cognitive resources that were generated by their social interactions in class and online using technology. The concept of social media that based on the appropriate tool and the medium to deliver knowledge, and helps learners can communicated with each other (Catherall, 2008) especially in teaching and learning using the potential of internet network to access with various sources of learning. The main purpose of this study is to research and develop activities to be appropriate with the learners that integrated with the concept of knowledge management and social media. The question then becomes, "How to develop the appropriate model of Learning though Virtual Learning Environments (VLEs) for Graduated Students, that study at Department of Educational Technology, Faculty of Education, Kasetsart University". More over the results of quality assessment of model that is body of knowledge to develop the learning skill of graduated students. In addition the results can be the information to support the higher education systems policy maker.

2. Objective

This research aims to study, develop, and evaluate the appropriated model of Learning though Virtual Learning Environments (VLEs) for Graduated Students, Department of Educational Technology, Faculty of Education, Kasetsart University.

3. The review of related literature

This research focus to review of related literature that divide into 5 main parts:

1. Educational Technology Department environment
2. Online learning (MOODLE-LMS Courseware)
3. The learning styles
4. The virtual world (virtual/ reality environment- Second Life)
5. The student's learning outcome

4. Methodology

The first phase focus to study the model of Learning though Virtual Learning Environments (VLEs) for Graduated Students.

1.1 Analyzing the elements of online learning are included the learning and teaching online learning activities management system (MOODLE).

1.2 Analysing the elements of virtual learning environment are included the virtual environment tools and channels to learning and teaching (Second Life). The second phase: Developing the model of knowledge management via web-based learning to enhance graduate student's self-directed learning skill and assessment tools.

1.3 Integrating the elements of online learning and virtual learning environment (SL+MOODLE=SLOODLE) by the matrix analysis technique.

1.4 Studying the appropriate quality of model by the 3 experts in the educational technology and virtual learning environment field

The second phase go for develop system of Learning though Virtual Learning Environments (VLEs) for Graduated Students and assessment tools.

2.1 Developing the system of Learning though Virtual Learning Environments (VLEs) based on the model and quality evaluated by the 3 experts (educational technology and virtual leaning environment field).

2.2 Developing the student's learning outcome form by the 55-60 graduate students who study in first semester, 2014 for study the research tools quality (try-out methods). The third phase: Evaluating the model of knowledge management via social media to enhance graduate student's self-directed learning skill.

2.3 Studying the efficiency of system of Learning though Virtual Learning Environments (VLEs) for Graduated Students.

2.4 Preparing the all of research tools which using in the next phase.

The third phase is to evaluating the model of Learning though Virtual Learning Environments (VLEs) for Graduated Students.

3.1 Population and samples:

3.1.1 Population are the graduate students who study in second semester, 2014 academic year at Faculty of Education, Kasetsart University

3.1.2 Samples are 60 graduate students that collected by random sampling technique and learn with the system of Learning though Virtual Learning Environments (VLEs).

3.2 Research tools:

3.2.1 The model of Learning though Virtual Learning Environments (VLEs).

3.2.2 The graduated student's learning outcome form.

3.2.3 The graduated student's satisfaction form.

3.3 Data analysis:

3.1 Descriptive statistics (mean and S.D.) are used to describe the basic features of the qualitative data.

3.2 Qualitative data were analyzed by category group and issuing data technique.

5. Results

The model of Learning through Virtual Learning Environments (VLEs) for Graduated Students was appropriated with the criterion of quality, detail are as follow:

1.1 Learner who are graduated student with different learning styles (Kolb Learning Styles, 1984)

1.2 Collaborative Learning that approaching to learning and teaching online learning activities management system (MOODLE-LMS Courseware).

1.3 Self-Directed Learning that focus on the student's learning outcome including the Self-Directed Learning skill test and Attitude test (satisfaction).

1.4 Online Learning Environment including the elements of virtual learning environment especially in virtual environment tools and channels to learning and teaching (Second Life). Details see in fig-1

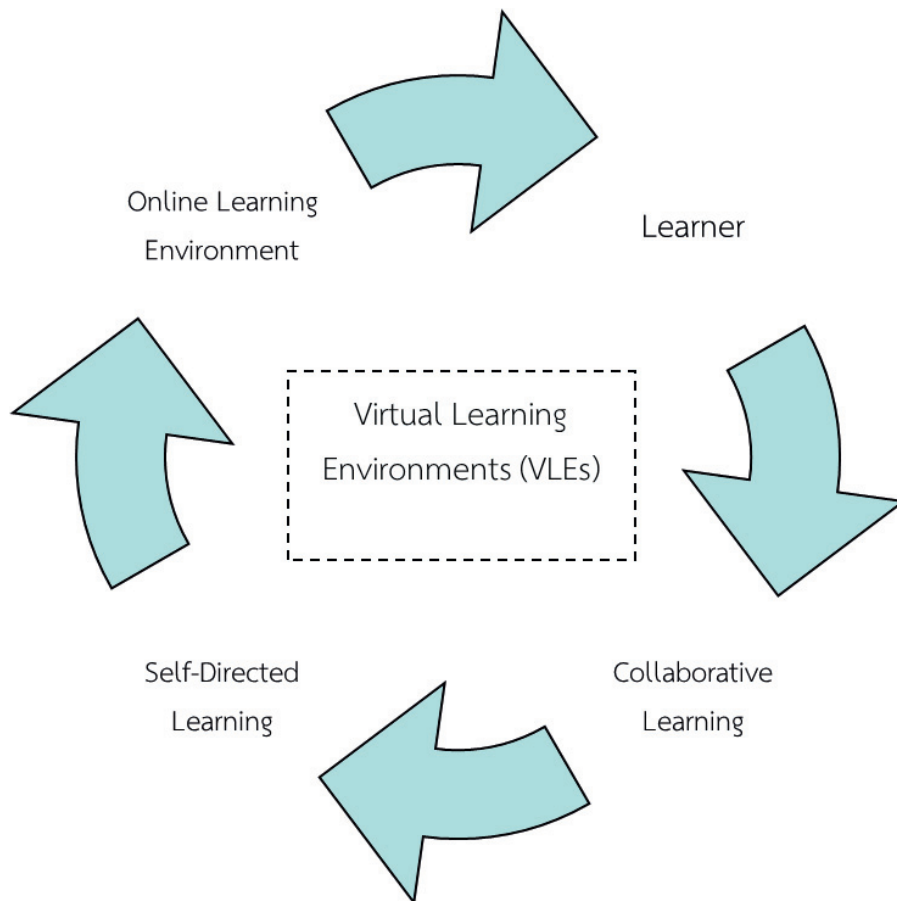


Fig-1. Model of Learning through Virtual Learning Environments (VLEs) for Graduated Students

6. Conclusions

The result of research in the first phase showed that the Model of Learning through Virtual Learning Environments (VLEs) for Graduated Students was appropriated and fit to the quality of educational media, this is because;

1. Online learning skills development is an emerging trend it is still a “new frontier”. Educators around the world experience many demands on their knowledge, time, and professional development.
2. Developing and sustaining an effective online learning community can be challenging even in the midst of an era of much technological advancement.
3. The online learning technologies have the potential to transform the professional development of students; penetrate cultural, discipline, and other barriers; bring educators together to learn, share successes and challenges; and co-construct and transfer learning.
4. The results of the training and simulation program have led to significantly improved grades on students' critical skills tests, taking scores from a 56% success in 2007, to 95% at the end of 2008 after the simulation was instituted.

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8. References

- Dabner, N. (2011). Design to support distance teacher education communities: A case study of a student–student e-mentoring initiative. Proceedings of Society for Information Technology and Teacher Education International Conference 2011. Nashville, TN: AACE 1-880094-84-3., 2011.
- Davis, N. E., Dabner, N., Mackey, J., Morrow, D., Astall, C., Cowan, J., & et al. (2011). Converging offerings of teacher education in times of austerity: Transforming spaces, places and roles. Proceedings of Society for Information Technology and Teacher Education International Conference 2011. Nashville, TN: AACE 1-880094-84-3, 2011.
- Erkunt, Hamdi. (2010). Emergence of Epistemic Agency in College Level Educational Technology Course for Pre-Service Teachers Engaged in CSCL. *TOJET: The Turkish Online Journal of Educational Technology*. July 2010, volume 9 Issue 3.
- Lee, Chi-Lung, et al. (2010). A process-based knowledge management system for schools: a case study in Taiwan. *TOJET: The Turkish Online Journal of Educational Technology*. October 2010, volume 9 Issue 4.
- Secretariat of the Council of Education. (2010). *Report to the Thai public education environment: reform knot*. Bangkok: Primdee publications.