Nattaphon Rampai 2011: The Development Model of Knowledge Management via Web-based Learning to Enhance Pre-Service Teacher's Competency. Doctor of Education (Educational Technology), Major Field: Educational Technology, Department of Educational Technology. Thesis Advisor: Associate Professor Saroch  Sopeerak, Ed.D. 275 pages.


This research explores that the model of knowledge management and web technology for teacher's professional development as well as its impact in the classroom on learning and teaching, especially in pre-service teacher's competency and practices that refer to knowledge creating, analyzing, nurturing, disseminating, and optimizing process as part of the learning quality improvements. In this process, web technology particular web-based learning has a necessary role to drive and integrate knowledge and learning activities within the knowledge management process. The aims of this research were 1) to study the appropriate model of knowledge management via web-based learning by the 18 expert's consensus; 2) to develop the efficacies of model and competency assessment tools are conducted the 37 volunteer participants' competency particularly in knowledge, attitude, and skills approach; and 3) to evaluate the competency of 64 pre-service teachers that divide and random assignment into 2 equal groups (control and experimental group).

The research findings revealed that the model of knowledge management via web-based learning was appropriated and enhanced the pre-service teacher's competency. Details are as follows. 1. The model of knowledge management via web-based learning to enhance pre-service teacher's competency  (I-Can do model): comprise that 1.1 Input step: comprise that the elements of web-based learning (instruction, interaction, and internet) and web technology (collaboration technology, communication technology, and storage technology); 1.2 Process step: comprise that the elements of knowledge management are include the knowledge management activities: creating (explore and capture) is driven by the benchmarking activity, analyzing (identify and organize) is driven by the communities of interest activity, nurturing (utilize and demonstrate) is driven by the after action review activity, disseminating (transfer and share) is driven by the communities of practice activity, and optimizing (evaluate and improve) is driven by the best practice activity; 1.3 Output step: comprise that the elements of competency (knowledge, attitude, and skills). This model was appropriated with the 18 experts' consensus. 2. The efficacy of knowledge management via web-based learning model was appropriated with the volunteer participants' competency that accord with the efficacy criteria of web-based learning. 3. The model of knowledge management via web-based learning was enhanced the pre-service teacher's competency, particularly the competency of pre-service teacher exhibited the experimental groups was high competency than control group at the .05 level of significance.

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