

Effects of Research-Based Blended Learning Model Using Adaptive Scaffolding to Enhance Graduate Students' Research Competency and Analytical Thinking Skills

Authors : Panita Wannapiroon, Prachyanun Nilsook

Abstract : This paper is a report on the findings of a Research and Development (R&D) aiming to develop the model of Research-Based Blended Learning Model Using Adaptive Scaffolding (RBBL-AS) to enhance graduate students' research competency and analytical thinking skills, to study the result of using such model. The sample consisted of 10 experts in the fields during the model developing stage, while there were 23 graduate students of KMUTNB for the RBBL-AS model try out stage. The research procedures included 4 phases: 1) literature review, 2) model development, 3) model experiment, and 4) model revision and confirmation. The research results were divided into 3 parts according to the procedures as described in the following session. First, the data gathering from the literature review were reported as a draft model; followed by the research finding from the experts' interviews indicated that the model should be included 8 components to enhance graduate students' research competency and analytical thinking skills. The 8 components were 1) cloud learning environment, 2) Ubiquitous Cloud Learning Management System (UCLMS), 3) learning courseware, 4) learning resources, 5) adaptive Scaffolding, 6) communication and collaboration tools, 7) learning assessment, and 8) research-based blended learning activity. Second, the research finding from the experimental stage found that there were statistically significant difference of the research competency and analytical thinking skills posttest scores over the pretest scores at the .05 level. The Graduate students agreed that learning with the RBBL-AS model was at a high level of satisfaction. Third, according to the finding from the experimental stage and the comments from the experts, the developed model was revised and proposed in the report for further implication and references.

Keywords : research based learning, blended learning, adaptive scaffolding, research competency, analytical thinking skills

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