

Kochjakorn Charoensuk 2012: Development of Web-Based Databank of Applied Mathematics Activity Applicable to Real Life Situation for Upper Secondary Level. Doctor of Philosophy (Curriculum and Instruction), Major Field: Curriculum and Instruction, Department of Education. Thesis Advisor: Mrs. Wiparat Sangjan, Ph.D. 374 pages.

The purpose of this research is to develop and evaluate quality of web-based databank of applied mathematics activity applicable to real life situation for upper secondary level. The samples used in preparation step are 15 mathematics masters. The purposive sampling used in step of evaluation has been divided into 2 groups: (1) 10 mathematics masters, (2) 10 technology masters. Research tools used in preparation step had 2 types: (1) questionnaire for designing main menu, (2) questionnaire for minor menu. Research tools used in evaluation step are: (1) quality of databank content form, (2) design web-based databank evaluation form. The data analyzed in the step of preparation are frequency distribution and percentage; in the step of evaluation are frequency distribution, means, S.D. and descriptive data.

The developing result is web-based databank of applied mathematics activity applicable to real life situation for upper secondary level. There are 5 main menus, consist of Number & Operation, Measurement, Geometry, Algebra, and Data Analysis & Probability. In each main menu, there are totally 16 minor menus and in each minor menu there are 2 sub menus: Lesson Plan menu and Activities/Materials/Games/Puzzles menu, posted on the Office of Regional Education Area 3: URL: <http://www.interu.net/index1.html>

The research finding were as follow, the content and knowledge in Lesson Plan menu in web-based databank of applied mathematics activity applicable to real life situation for upper secondary level evaluated by mathematics masters was at the level of good ($\bar{X} = 4.49$, S.D. = 0.50). The content and knowledge in Activities/Materials/Games/Puzzles menu in web-based databank of applied mathematics activity applicable to real life situation for upper secondary level evaluated by mathematics masters was at good level ($\bar{X} = 4.35$, S.D. = 0.53). In the part of presentation and design evaluated by technology computer masters, it was found that the form and presentation were at good level ($\bar{X} = 4.43$, S.D. = 0.50).

Student's signature

Thesis Advisor's signature