

Sineenat Thammachart 2011: Development of WebQuest on Physics in Mathayomsuksa 5. Doctor of Education (Curriculum and Instruction), Major Field: Curriculum and Instruction, Department of Education. Thesis Advisor: Associate Professor Somtawil Dhanasobhon, Ed.D. 177 pages.

The objectives of this research were to develop WebQuest on physics in Mathayomsuksa 5 and to study the effects of usage of WebQuest on physics in Mathayomsuksa 5. The research procedures consisted of three phases: 1) Preparation for WebQuest development, 2) WebQuest development, and 3) The implementation of WebQuest for 34 Mathayomsuksa 5 students from the Princess Chulabhorn's College in Satun in the first semester of the 2010 academic year, selected by means of simple random sampling. The research tools comprised the WebQuest, tests, records of the behavior of the students, and interview forms on the students' opinions. Percentage and mean were used to analyze the quantitative data. The content analysis was applied to assess the qualitative data.

The research results revealed: 1) The result of the WebQuest development which obtained WebQuest on physics at the URL: <http://pirun.ku.ac.th/~g5086033>, consisted of three units: Amazing Wave, Adventure of Light and The Word of Sound. 2) The results of the use of WebQuest were: (1) The achievements of the students reached levels of 61-88% which denote satisfactory to excellent performances. The mean of the achievement of the students attained a level of 75.62% which constitutes a very good level. (2) Students developed their inquiry learning, thinking, cooperative learning as well as communication and computer skills due to WebQuest which involves the role of teachers, students, and the pertinent availability of the prerequisite facilities. (3) According to the opinions of the students, WebQuest has the potential to facilitate the comprehension of physics. WebQuest was found to be good and suitable in contents, instruction, evaluation, and technology applied which help students gain knowledge, skills, and a positive attitude toward physics. Furthermore, WebQuest is beneficial as to render the learning experience enjoyable.

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Student's signature

Thesis Advisor's signature