

Surin Cortong, Wing Commander 2010: The Development of a Learning Model through the Royal Thai Air Force Wide Area Network Using the Constructionism for Aircraft Mechanics. Doctor of Education (Educational Technology), Major Field: Educational Technology, Department of Educational Technology. Thesis Advisor: Associate Professor Saroch Sopeerak, Ed.D. 275 pages.

The purposes of this research were: 1) to construct the Web-based Learning model using the constructionism approach for aircraft mechanics of 601 squadron, Wing 6, Royal Thai Air Force. 2) to find out the efficiency of learning model. 3) to compare the learning achievement posttest scores between traditional group and experimental group. And 4) to study satisfaction toward the Web – base learning model that was constructed by the researcher.

There were 3 groups of populations. The first group consisted of 34 administrators on aeronautical engineering field, were selected by the purposive sampling technique. The second groups were 102 of teachers in aeronautical engineering field of aircraft Wing installation that were selected by the purposive sampling technique. The third groups were 60 of aircraft mechanics that divided into traditional group and experimental group all those were used for the target population. Data were analyzed by using mean, standard deviation, and independent samples t-test.

Results of the research were shown as follows : of the Web-based learning model using by the constructionism approach should be included of 8 phases: 1) preparation 2) studying 3) data collection 4) discussion 5) implementation 6) revision 7) evaluation 8) presentation. The efficiency of the Web-based learning model using the constructionism approach was $89.26/90.66$ which follows the criteria. It was found that the post-test scores of experimental group were higher than the post-test scores traditional group at .05 level of significance. The learner of experimental group satisfaction toward the constructed Web-based learning model was at “highest” level.

Student's signature

Thesis Advisor's signature

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