

A Comparative Study on the Development of Webquest and Online Treasure Hunt as Instructional Materials in Teaching Motion in One Dimension for Grade VII Students

Authors : Mark Anthony Burdeos, Kara Ella Catoto, Alraine Pauyon, Elesar Malicoban

Abstract : This study sought to develop, validate, and implement the WebQuest and Online Treasure Hunt as instructional materials in teaching Motion in One Dimension for Grade 7 students and to determine its effects on the students' conceptual learning, performance and attitude towards Physics. In the development stage, several steps were taken, such as the actual planning and developing the WebQuest and Online Treasure Hunt and making the lesson plan and achievement test. The content and the ICT (Information Communications Technology) effect of the developed instructional materials were evaluated by the Content and ICT experts using adapted evaluation forms. During the implementation, pretest and posttest were administered to determine students' performance, and pre-attitude and post-attitude tests to investigate students' attitudes towards Physics before and after the WebQuest and Online Treasure Hunt activity. The developed WebQuest and Online Treasure Hunt passed the validation of Content experts and ICT experts. Students acquired more knowledge on Motion in One Dimension and gained a positive attitude towards Physics after the utilization of WebQuest and Online Treasure Hunt, evidenced significantly higher scores in posttest compared to pretest and higher ratings in post-attitude than pre-attitude. The developed WebQuest and Online Treasure Hunt were proven good in quality and effective materials in teaching Motion in One Dimension and developing a positive attitude towards Physics. However, students performed better in the pretest and posttest and rated higher in the pre-attitude and post-attitude tests in the WebQuest than in the Online Treasure Hunt. This study would provide significant learning experiences to the students that would be useful in building their knowledge, in understanding concepts in a most understandable way, in exercising to use their higher-order thinking skills, and in utilizing their capabilities and abilities to relate Physics topics to real-life situations thereby, students can have in-depth learning about Motion in One Dimension. This study would help teachers to enhance the teaching strategies as the two instructional materials provide interesting, engaging, and innovative teaching-learning experiences for the learners, which are helpful in increasing the level of their motivation and participation in learning Physics. In addition, it would provide information as a reference in using technology in the classroom and to determine which of the two instructional materials, WebQuest and Online Treasure Hunt, is suitable for the teaching-learning process in Motion in One Dimension.

Keywords : ICT integration, motion in one dimension, online treasure hunt, Webquest

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