

The development of scientific concepts on motion in uniform field of grade 10 students through Predict-Observe-Explain (POE) with video demonstration.

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This research was aimed to study and enhance the students' concepts on motion in uniform field through Predict-Observe-Explain (POE) by using video demonstration. There were 29 grade 10 students, second semester of academic year 2014, Nareenukun School Office of Secondary Education Service Area 29. This research was performed in qualitative research designed. There were three main research tools used. Firstly, 6 lesson plans (total 12 hours) on motion in uniform field. Secondly, the evaluation tools consisting of a learning management's journal and a teaching observation form. Finally, Force Concept Inventory Diagnostic Test by Eric Mazur (Pearson Prentice Hall, 1997), Thai version. The results shown that the students had alternative conceptions in the direction and magnitude of motion in uniform field and observing data was interpreted soon after each learning activity finished. It was found that students had developed their alternative concepts to scientific concepts after participating the POE with video demonstrations.

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