

Nisarath Paoguntrakorn 2013: Process Drama Extra-Curricular Activity for Developing Upper Primary Students' Conception and Raising Awareness of Earthquake and Tsunami. Master of Education (Science Education), Major Field: Science Education, Department of Education. Thesis Advisor: Assistant Professor Pongprapan Pongsophon, Ph.D. 187 pages.

This study is case study research divided into three phases; need assessment, design and development of a teaching innovation, and implementation and evaluation of the innovation. The purposes of this study were: 1) to examine the conception and awareness of earthquakes and tsunami; and 2) examine the effect of a process drama, an extra-curricular activity on the participants' conception and awareness. The participants were two groups of upper primary students from one laboratory school in Bangkok; each cohort for the first and the third phases. The measures are comprised of an interview protocol on the conception of earthquake and tsunami, the questionnaire on the awareness of earthquake and tsunami, students' reflective journal, and teachers' reflective journal. Content analysis and descriptive statistics (frequency and percentage) were used to analyze the data.

The findings indicate that 1) in need assessment phase, the majority of students had no or alternative conception in the topics of the origin, the cause, the process of earthquake and tsunami, earthquake and tsunami in Thailand, factors affecting the magnitude of earthquake and tsunami. They, by and large, were aware of the phenomena at the Organization level. 2) The majority of the participants of Science Drama Club developed scientific conception in all topics of earthquake and tsunami and increase their awareness to Characterization level. 3) Recommendations on tips and tricks for organizing effective and efficient process drama experience for students are given as follows. In Research phase, teachers should have inquiry-based activity (s) and let the students actively engage and discover scientific concept by themselves. The teachers should arrange learning resources so they can study, refer, and check their understanding. In Production phase, there should be an activity (s) in which students could explore and discover their potential and interest regarding the production and acting parts of the process drama. The teachers should assign students' role and responsibility accordingly and form a team of trainers and coaches to provide technical and moral support to the students while the production in progress. In the Dissemination phase, the performance should be taken place in friendly public places. After the performance, the teachers should organize a session where students could reflect upon their learning and the teachers could take this occasion to evaluate student conception and give feedback if necessary. Besides, the research also found that the drama activity series can be used with students with various ages and abilities. Students gradually developed scientific conception and awareness about the natural phenomena throughout process drama.

---

Student's signature

---

Thesis Advisor's signature