

Manegan Jitauafua 2014: Enhancing Grade 11 Students' Scientific Literacy on Kingdom of Organisms according to Science, Technology and Society (STS) Approach integrating with the Philosophy of Sufficiency Economy. Master of Education (Science Education), Major Field: Science Education, Department of Education. Thesis Advisor: Mr.Sasithep Pitipornatapin, Ph.D. 214 pages.

The aims of this study were to enhancing grade 11 students' scientific literacy on Kingdom of Organisms according to Science, Technology and Society (STS) approach integrating with the Philosophy of Sufficiency Economy and to study the best practice of Science, Technology and Society (STS) approach integrating with the Philosophy of Sufficiency Economy for the development of the students' scientific literacy about Kingdom of Organisms.

The participants of this study were 25 grade 11th students studying in the second semester of 2012 academic year. They were in one small-sized secondary school in the southern provinces of Thailand. The research instruments and data source included lesson plans, scientific literacy tests, interviews protocol, teacher's logs and videos and student tasks. The quantitative data were described by frequencies and percentages. The qualitative data were analyzed using content analysis.

The results showed that 1) teaching according to STS approach and the philosophy of sufficiency economy could enhance the students' sound understanding in all topics: Classification; Kingdom Monera and Kingdom Fungi at 12.00%, 8.00% and 4.00% respectively. However, they still had partial understanding in all topics: Scientific name; Kingdom Animalia; Kingdom Protista and Kingdom Plantae at 68.00%, 80.00%, 84.00% and 88.00% respectively. 2) all students engagement in issues about the kingdom of life in family, society, and community level at 15.38%, 30.77 % and 58.85% respectively. Moreover, the characteristics of Science, Technology, Society (STS) approach and the philosophy of sufficiency economy for enhancing of the students' scientific literacy consisted of: 1) Teachers used science, technology and society issue, and positive reinforcement to motivate students' interesting in searching for the answers; 2) The roles of teachers gradually decreased when students were familiar to Science and Technology, Society (STS) Approach integrating with the Philosophy of Sufficiency Economy; 3) Working in groups with diverse ability allowed students interact between each other and also promoted more group process skills; 4) The connection of content and philosophy of sufficiency economy were gained from students' experience in daily life; and 5) Managing the activities outside the classroom could cultivate and cherish their local resources better than studying from pictures or books.

Student's signature

Thesis Advisor's signature