

Nipaporn Klaysombat 2014: The Development of Grade 12 Students' Conceptions in the Topic of Fluid and Attitude towards Physics through Inquiry Learning Approach. Master of Education (Science Education), Major Field: Science Education, Department of Education. Thesis Advisor: Mr. Eakgapoom Jantarakantee, Ph.D. 165 pages.

This classroom research aimed to develop grade 12 students' conceptions in the topic of fluid and attitudes towards physics through inquiry learning approach. There were 6 concepts in fluid including fluid pressure, Pascal's law, Buoyant force, surface tension, viscosity and fluid dynamics. The subjects were 25 grade 12 students, from a school in the secondary education service area office 16. Which the researcher was assigned to teach in the first semester of 2010 academic year. Data was collected by a fluid concept test, attitude towards physics test, students' journals and teachers' journals. The data was analyzed by calculating, average, percentage and content analysis.

The research found that inquiry learning approach could develop students' concepts in the topic of fluid in all 6 concepts. However, in the topic of Buoyant Force and viscosity, most students hold Partial Understanding with Specific Misconception (PUSM) about using Newton's First Law to explain the situations. Furthermore, students' attitudes towards physics in the topic of fluid was in a good-level; especially in the area of physics learning activities.

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Student's signature

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Thesis Advisor's signature