

Onrumpa Kumnuanek 2011: Grade 11 Students' Conception in Topic of Perception and Response in Living Organisms by Integration of Constructivist Learning Theory and Concept Mapping Techniques. Master of Education (Science Education), Major Field: Science Education, Department of Education. Thesis Advisor: Miss Akarat Sreethunyoo, Ph.D. 125 pages.

This classroom action research aimed to study the guideline for developing constructivist based learning activities integrating with concept mapping technique and study students' conception about perception and response in living thing. The subject of this study was 30 grade eleven students from a secondary school in Saraburi province. Two tailed open-ended conceptual test, students' journals and concept map were used as research tools.

The results showed that constructivist based learning activities to increase student scientific conception should start with eliciting students' prior knowledge by conducting stimulating situations, such as formulating with students' real life situations or asking students to observe what being learn by themselves, after that use active questions to stimulate students' thinking. Moreover, teacher should allow opportunities for students to interact between students and students, or students and teacher. Students finally concluded what they have learned in term of concept mapping.

It also found that the majority of student hold complete understanding about perception and response in living thing after they participating in constructivist based learning activities integrating with concept mapping technique. Students hold the most complete understanding in concept of "unicellular and animal perception and response" (80%), followed by concept of "type and structure of neuron" (53.3%) and 50% of students hold equally complete understanding in both of "How to perception and response" and "action of neuron". For students' responses collected by concept map, it was found that about a quarter of students could construct concept map that showed relation of main ideas of all topics and could indentify subtopic of each topic, the orthers could construct concept map of individual topic only.

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Thesis Advisor's signature

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