

Ponpassorn Jachaiyaphum 2014: The Development of Tenth Grade Student s' Conceptions on Chemical Reactions by Context-Based Learning. Master of Education (Sciense Education), Major Field: Sciense Education, Department of Education. Thesis Advisor: Miss Chittamas Suksawang, Ph.D. 166 pages.

The purposes of this research were to 1) study 10th grade students' conceptions on Chemical Reactions for pre and post instruction by Context-Based Learning. 2) Study the effective ways of this instructional approach to enhance students' conceptions. The participants were 35 10th grade students at a school. The students enrolled the basic Chemisty Course in the second semester, B.E. 2556 academic year. Multiple data sources consisted of students' completing the concept test with semi-structured interview, field notes of classroom observation, Researcher's reflective journals, students' jounals and students'task. The data of students' conceptions was analyzed to percentage. Inductive analysis was used to explore the effective ways of the approach.

The results revealed that 1) the percentage of students with sound understanding for post instruction was higher than pre instruction for almost conceptions. They had mostly sound understanding in the topic of Chemical reaction in daily life. However, some of the students had partial understanding and misunderstanding in the topic of occurrence of chemical reaction and factors affecting rate of reacton. 2) The effective ways of the approach: using of examples of situation or information in the daily life; doing experiment, exploring data; using visual experiment; presenting the findings; using positive reinforcement; and using new several contexts.

Student's signature

Thesis Advisor's signature

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