

Wannisa Tangsup 2013: The Development of Assessment Tool for Evaluating Matthayom Suksa 4 Students' Analytical Thinking in Chemistry Using Mind Map. Master of Education (Educational Research and Evaluation), Major Field: Educational Research and Evaluation, Department of Education. Thesis Advisor: Assistant Professor Wasan Thongthai, Ed.D. 146 pages.

The objective of this research is to develop the assessment tool for evaluating matthayom suksa 4 students' analytical thinking in chemistry using mind map. There are three specific objectives, 1) to construct validity, reliability, objectivity and usability, 2) to specify the criterion for the interpretation of this method and 3) to provide the manual for the assessment tool, respectively. The target population is 49 students in matthayom suksa 4/2 Triamudomsuksanomklao school.

The assessment tool for evaluating matthayom suksa 4 students' analytical thinking in chemistry using mind map have been constructed through the following steps; 1) defined the objectives for the development of the assessment tool for evaluating matthayom suksa 4 students' analytical thinking in chemistry using mind map. Then studied concept, theory including documents and researches related in analytical thinking, mind map and chemistry to define factors of the analytical thinking and to construct the assessment tool, 2) constructed tool for evaluating matthayom suksa 4 students' analytical thinking in chemistry using mind map, 3) reviewed the construct validity, reviewed lesson plans and criterion for the interpretation of assessment tool by specialist, 4) verified and improved quality of the assessment tool, 5) defined criterion for the interpretation of this method, 6) constructed the manual of the assessment tool

The results revealed that: 1) the assessment constructed is validity. The item objective congruence index, were in the range of 0.66-1.00. The internal consistent reliability of the assessment tool is 0.92 which are objective and usability, 2) the criterion for interpretation of assessment tool in each factor and overall are accurate with the objectives of the assessment tool, 3) the manual for the assessment tool are objective.

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Thesis Advisor's signature