

DEVELOPMENT THE INTEGRATED ASSESSMENT INSTRUMENTS FOR MEASURE THE ACHIEVEMENTS OF THE COGNITIVE ASPECTS AND SCIENCE CHEMICAL PROCESSES SKILLS OF HIGH SCHOOL STUDENTS

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ABSTRACT

In the first year of this research aims to develop integrated assessment instruments and determine the validity and quality of the instrument, that capable to measure the thinking skills involve critical thinking, high order thinking, and analytical thinking and science process chemistry skills of SMA / MA students.

This study used a model of development of the 4-D modified with McIntire test development model, includes nine stages of development. The first year carried out in five stages. The first step was a study literature, needs assessments, and small research-scale. Second steps of planning research were designed the study and formulating the goals of research. The third steps was formed a early development product, namely designing blue print, rearrange the matrix, and a hypothetical design. Step IV was formed of field limited trials, namely the drafting, consultation draft, limited the initial field test and designed validation product. Step V was formed a limited revision of the test results by media experts and subject matter experts, followed by a step VI is test field trials widely.

The results of the study in the first year has produced 5 integrated assessment packages of electrolyte solution, the reaction rate, equilibrium, and acid-base topics that has been through a limited and spacious field trials. The quality of the product, is a very good category both base on the teacher responses and item difficulties.

Kata Kunci: integrated assessment, thinking ability, process science skill, development research, critical thinking and analytical thinking