World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:10, No:08, 2016

Developing Critical-Process Skills Integrated Assessment Instrument as Alternative Assessment on Electrolyte Solution Matter in Senior High School

Authors: Sri Rejeki Dwi Astuti, Suyanta

Abstract : The demanding of the assessment in learning process was impact by policy changes. Nowadays, the assessment not only emphasizes knowledge, but also skills and attitude. However, in reality there are many obstacles in measuring them. This paper aimed to describe how to develop instrument of integrated assessment as alternative assessment to measure critical thinking skills and science process skills in electrolyte solution and to describe instrument's characteristic such as logic validity and construct validity. This instrument development used test development model by McIntire. Development process data was acquired based on development test step and was analyzed by qualitative analysis. Initial product was observed by three peer reviewer and six expert judgment (two subject matter expert, two evaluation expert and two chemistry teacher) to acquire logic validity test. Logic validity test was analyzed using Aiken's formula. The estimation of construct validity was analyzed by exploratory factor analysis. Result showed that integrated assessment instrument has 0,90 of Aiken's Value and all item in integrated assessment asserted valid according to construct validity.

Keywords: construct validity, critical thinking skills, integrated assessment instrument, logic validity, science process skills

Conference Title: ICERI 2016: International Conference on Education, Research and Innovation

Conference Location: Kuala Lumpur, Malaysia

Conference Dates: August 18-19, 2016