

Systematic Development of Formative Test in Algebra Achievement Among Form Four Students Using the Rasch Model at Smk Sikuati II, Kudat

ABSTRACT

A measuring instruments is very important to ensure that students can periodically measure their level of achievement in a topic for each lesson that they have learned with systematically. This research measures their level of development in algebra in learning mathematics via online using the self-regulated learning method at SMK Sikuati II, Kudat, Sabah. The researcher has produced a measuring instrument in the form of a 40-item achievement test to periodically measure the development of student command in algebra. Instrument validity is done using the validation of experts in terms of content and construct. The reliability of the test is done by using the Rasch model which can assess the items' level of difficulty and also the level of capability in obtaining correct answers for the next test items, where teachers and students can accurately assess the development of student command. The implication of this research is hoped to provide contributions in the context of development in student topical command assessment, the usage of the Rasch model, improvement of teacher assessment instrument and increase of student achievement.