

THE DEVELOPMENT OF COMPUTER –BASED ASSESSMENT OF PHYSICS SCIENCE TO IMPROVE READINESS OF STUDENTS IN DEALING WITH COMPUTER –BASED NATIONAL EXAMINATION

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ABSTRACT

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Abstract

This research aims to 1) produce computer-based assessment instruments eligible to measure the cognitive abilities of learners High School, 2) test the effectiveness of computer-based assessment instrument developed to measure the knowledge of physics in high school students, 3) measuring the level of preparedness of students in national exams based computers.

This research uses a model of Research and Development (R & D). Model R & D consists of three main stages: the preliminary stage, the stage of development and evaluation phase. At the preliminary stage has identified problems of computer-based assessment of learning physics. At this stage of development has been carried out the design manufacture of computer-based assessment instrument physics, product validation, product revisions and testing of products on a limited basis. In the evaluation phase has been tested extensively, product revision, and the final product. Descriptive statistical test used to describe the results of the application of computer-based knowledge assessment.

The results research show that : 1) Computer-based assessment instruments eligible to measure cognitive abilities in high school students, 2) Computer-based assessment instruments more effective and efficient way to measure the ability of learners knowledge of physics in high school rather than paper and pencil test, 3) Learners 58.67% are ready to face computer-based test, 34% of students are not ready for the computer based test and 7.33% are not ready to perform the test based computer.

Key word: Computer-Based Assessment, Physics

Kata Kunci: *Computer-Based Assessment, Physics*