DESIGN AND IMPLEMENTATION OF EXAMINATIONS AND ASSESSMENTS SYSTEM BASED COMPETENCY FOR ELEMENTARY AND SECONDARY EDUCATION LEVEL

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Abstract

Kurikulum Berbasis Kompetensi (KBK) is a curriculum that is used today. This curriculum can provide a space to explore the material with the problems that occur at this time. KBK has two main tools are the standard of competence and basic competence. Competency standards are minimum requirements that must be met to fulfill a subject, which is the minimum requirement of basic competencies that must be met in order to meet a standard of competence. In KBK there are three aspects of assessment, namely aspects of psychomotor, affective, and cognitive. The third aspect of the above are involved in the examination system and competency-based assessment in which the base is a form of minimum competency in subjects that must be mastered by students.

But in carrying out the examination system is sometimes not applied according to the rules of education because teachers feel difficulty in making exercises (exam, midterm exam, final exam) in accordance with the basic competence and the difficulty in detecting the weaknesses of students' understanding of a specific outcome. Also scoring system based on the KBK is quite
complicated because of different way of assessment between the psychomotor, affective and cognitive.

Therefore software needs to be made to assist the process of examinations and assessments at the elementary and middle school levels. Based on the implementation and testing of this system concluded that the creation of this software can help teachers and students in the process of competency-based examinations and assessments. This software will assist teachers in generating tests, midterms and final exams the semester based on the standards of competence, basic competence, limits the ability of students, type and duration of the workmanship about the matter. Test generation process on the software uses the weighting of some categories are calculated by the method of weighted tree. Meanwhile, check out the answers of essay cognitive process used cosine similarity method. In addition, this software will also assist students in carrying out the test and find weaknesses in students understanding of a standard of competence so that the resulting learning advice. The software also handles the assessment aspect of cognitive, affective and psychomotor students in Indonesia and sending it into the database.

Keyword: KBK, cognitive, affective, psychomotor, weighted tree, cosine similarity.