Development of Computer Based Pedagogical Competency Test Questions for Participants in Professional Teacher Education (PPG) Automotive Engineering Management

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ABSTRACT

Abstract The purpose of this study was to develop a Computer Based Pedagogical Competency Test Problem. This issue is very important for the successful implementation of PPG, considering that the quality of PPG is determined by the existence of a computer-based National Writing Examination with the dominant test material being Pedagogic competency material. This research was conducted with the research and development approach of the Borg and Gall model with a simplification of some of the steps, which are broadly grouped into three stages, namely: (1) making product planning (planning), which includes activities: preliminary study, and developing preliminary models. (2) limited trials which include Preliminary Field Testing and Main Product Revision activities. (3) expanded trials (main field testing / main field testing), followed by production of equipment (operational products), until a final device (final product revision) is obtained. The results of this study are: (1). Development of Computer Based Pedagogical Competency Test Questions for PPG Participants Automotive Engineering expertise is carried out through various stages, namely: (a) the planning stage which includes: the content of the questions, the form of questions and the number of questions, (b) the stage of writing the questions (c) the stage of program development computer, (d) the testing phase, and (e) the evaluation stage of the quality of development results, (2) The quality of development results based on rational analysis is that all items have fulfilled the requirements in terms of material aspects, construction aspects: as well as language aspects. (3) the price of Difficulty Level (TK) is: there are 15 questions with easy TK, 38 questions with moderate TK and 7 questions with difficult TK, meaning the ratio between Easy: Medium: Difficult is 25%: 63%: 12%. (4) the price of distinguishing power (DP), namely: there are 3 questions with a very good DP, 26 questions with a good DP, 12 questions with a sufficient DP, 13 questions with a poor DP, and 6 questions with a very poor DP. This means that there are still 19 questions (32%) that do not qualify as good questions. (5) Distribution of the Effectiveness of Distractors, namely: there are 14 questions with 2 distractors not yet effective, there are 29 problems with 3 distractors not yet effective, there are 17 questions with 4 distractors not yet effective.

Kata Kunci: *Pedagogical, Competency, Automotive*