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Single-Correct Answer (SCA) and Multiple-Correct Answer (MCA) in Multiple-Choice Computer Assisted Language Testing (CALT) Program

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Abstract: This paper describes the use of single-correct answer (SCA) and multiple-correct answer (MCA) in assessing secondary school students' grammar proficiency in Indonesia. There were 154 students from year 11aged 15 year old that participated in the study. From the total 154 students; 98 students participated in the SCA test session, 103 students complete the MCA test, and 84 students filled in the survey. In addition, 52 students were recorded to attend the three sessions from the study: SCA, MCA and survey. Result of the study has shown that the design of SCA and MCA in multiple-choice the computer assisted language testing (CALT) program corresponds the main principle of language testing similar to the paper-based testing format. Although the design of both SCA and MCA tests fulfilled the requirement of CALL environment such as interactivity, flexibility, content appropriateness as well as performance; as the nature of test the application of SCA and MCA test in delivering the grammar test was believed to suggest stressful environment. The authenticity setting of both SCA and MCA test which was proposed to promote the originality of students' work was identified to drive uncomfortable testing situation. Within comparison between the SCA and MCA tests, result of the study has shown that students preferred to SCA test than the MCA test. The SCA test was believed to serve practicality for the students to complete the grammar task for the sake of number of correct answer available. Although students were challenged to complete the grammar test carried within the MCA test format, students preferred not to have such testing as it created more uncomfortable testing environment for them.

Keywords: Computer assisted language testing (CALT), single-correct answer (SCA), multiple-correct answer (MCA), grammar test

1. Introduction

Computer has been widely used to assess language proficiency (Coniam, 2006; Dunkel, 1991; Lee, 2004; Y. Sawaki, Stricker, & Oranje, 2009). In promoting the benefits of computer in carrying the language testing task, some literature (e.g. Choi, Kim, & Boo, 2003; Coniam, 2006; Lee, 2004; Sawaki, 2001) evaluate the use of computer in testing language within comparison to conventional paper-based test. Coniam(2006) evaluate the use computer-based and paper-based English listening test. His evaluation of 115 students grade 11 and 12 from two schools attending the two mode of tests: computer and paper based tests has shown that the students performed better in computer-based test than the conventional one. In Choi et al.'s (2003) comparative study of a paper-based language test and a computer based test at five universities at Korea, they found that the section of reading within the computer based test received the weakest support. Choi et al (2003) believes that eye fatigue may be factors harming students' concentration while reading the passages on the computer. This corresponds suggestion offered by Bridgman and Rock (1993) saying that computer based test need to pay attention to the length of instruction given.

Some authors view that open-ended questions (e.g. essay) offers wider room for measuring cognitive process as well as behavior (e.g. Bennett et al., 1990; Birenbaum & Tatsuoka, 1987; Brown, 2004). Although multiple choice test format is likely viewed to be inferior in exploring students' problem solving ability as well as constrain teachers from retrieving much information from the students or test takers (Birenbaum & Tatsuoka, 1987), the test format may be seen as alternative of test that offer less stress for students and practical. Within multiple choice test format, students may be facilitated by available answers to the question items (Cheng, 2004) and retrieved direct feedback as the test offers benefit in suggesting practicality of scoring (see Birenbaum & Tatsuoka, 1987; Bridgeman & Rock, 1993).

In a study conducted by Coniam(1999), the use of multiple choice test in computer based program is shown to be students' preference compared to the paper-based test. Coniam(1999) argues that students' preference to the computer-based program is derived by simplicity of the program such as clicking alternative answer in multiple choice test application. In addition, a study conducted by Cheng (2004) has shown that students preferred the multiple-choice test compared to the multiple choice cloze and the open-ended tests. Cheng (2004) discusses that students' preference is mainly derived by stimuli available in multiple choice test format. Furthermore, it is likely obvious that alternative answers available in the multiple choice tests promote students for guessing. However, it is still not clear if the scoring method applied in the three test formats may also attribute to such students' preference.

In Indonesian context, wide use of computer to facilitate language testing has been applied to evaluate school teachers' competence. For such use, the Indonesian government has developed web-based application to facilitate this teacher competency online testing as available to access at http://www.ukg.web.id. Although teachers have been shown to get much exposures as well as experiences in completing the online testing, they are likely to pay little interest of using computer to evaluate their students' language proficiency. There are three indications to this reluctance of using computer for testing purpose in Indonesian secondary school context: 1) teachers' inadequate knowledge of testing principles applied in computer-based testing, and 2) teachers' inability of designing computer based test for classroom use. This paper describes principles applied in designing SCA and MCA CALT programs in assessing secondary school students' grammar proficiency. It also discusses students' preference to SCA and MCA CALT programs they experienced.

2. Method of the study

The study was conducted in a secondary school in Jakarta, Indonesia. A case study was chosen as the method of the study for two main reasons: a small scale of the study and the degree of in-depth investigation. There were 154 students from year 11aged 15 year old that participated in the study. Questionnaire was developed to collect the data related to students' preference to the SCA and MCA tests. From the total 154 students; 98 students participated in the SCA test session, 103 students complete the MCA test, and 84 students filled in the survey. There were only 53 students attending the three sessions. These data from the 53 students were thus analyzed to show students' preference to the SCA and MCA tests.

3. Findings and recommendations

Result of the study has shown that the design of SCA and MCA followed the general principle of testing such as clear test objective, test specification, test task, and scoring method. In addition, as the SCA and MCA application was carried out in CALL environment, the requirement of interactivity, flexibility, content appropriateness, and performance. The Docebo© platform is seen to match the CALL environment for testing purpose. Within the comparison between the SCA and MCA tests, result of the study has also shown that the SCA test serves practicality in its completion. This practicality aspect has emerged due to the single alternative of answer available in the SCA test as well as the way it is done.

Result of the study has shown that students' view towards the application of SCA and MCA tests is negative. Although the result of the study has shown that the MCA suggests more challenge to the students to complete, students prefer not to have this format of testing as the test contributed to

students' stress.Therefore, it is recommended for further modification of computer based testing design that facilitates motivation as well as comfortable environment for students while undertaking the computer based tests.

This study is limited to the investigation of the students' preference to the application of SCA and MCA. The preference is particularly to reflect students' convenience in using such SCA and MCA programs instead of the language proficiency being tested. In addition, this study has not yet been clear in suggesting the SCA and MCA multiple choice programs as alternative in testing area of students' language proficiency instead of computer affordability for language testing.Thus, it is suggested for further research to drive its main focus on the area of language proficiency that may be affordably investigated in format either of SCA and MCA multiple choice program.

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