



THE USE OF COMPUTER-BASED ASSESSMENT (CBA) IN MEASURING STUDENTS' ACHIEVEMENT TEST

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This paper is intended to discuss the result and the performance of KPN student's achievement through Computer Based Assessment (CBA) as the media in doing the summative test. This test refers to as assessment of learning, and aims to measure the student's performance at the end of their course and based on the syllabus or the course textbook given by the teacher. Since the English teacher is having a burden in correcting the student's paper examination manually in giving the feedback of the test, so this CBA model is one kind of the best solution. The method used in collecting the data is by qualitative approach. The students are given 100 multiple choice questions and the time allotment in answering the questions is about 60 minutes. There are 140 students who do the test by CBA model. From the result of the test, it can be found that there are 29% students who get score in length of 85-100, 26% get score in length of 70 – 84, 21% get score in length of 60-69, 11% get score in length of 50-59, and 13% get score in length of 31– 49. By having known this test result instantly, the teacher can decide to do the remedial test in order to increase the students' English achievement and master the English knowledge given during one semester. This remedial test by using CBA model is very helpful for teacher in knowing the student's achievement without spending much time in doing correction.

Keywords: CBA, students' achievement, and test

Introduction

English has a very important role for anyone who wants to be successful in every field of job. Even though this language is as a foreign language, but it has a big role in deciding the success of Indonesian people in finding a better job. This phenomenon is also happened for students of *DIII Ketatalaksanaan Pelayaran Niaga dan Kepelabuhan* (KPN) Program as the staff candidate or a good manager at various Shipping Companies in the future. Therefore, English must be mastered by them in order to be able to run their job well.

KPN program is one of the study programs found at AKPELNI – Semarang, besides Nautical & Technical Study Programs. Therefore, English material is categorized as English as a Specific Purpose (ESP). Therefore, to measure the students' mastery in English, the teacher needs to provide an evaluation at the middle or at the end of the course. Based on this statement, it is well known that in doing the teaching & learning process, a test or an evaluation is precisely needed. Testing is a topic of

concern to language teachers. Besides, this test plays three important roles in ESP program: define course objective, stimulate student progress, and evaluate class achievement. According to Vallet (1977, p. 5), there are four basic types of language test: aptitude tests, progress tests, achievement tests, and proficiency tests. However in this study, the writer focus on the achievement test, where it can measure how many students have learned in the course of foreign language learning. The type of test given by the teacher is the achievement test. Achievement test is related directly to classroom lessons, units, or even a total curriculum. Achievements tests are limited to particular material covered in a curriculum within a particular time frame, and are offered after a course has covered the objectives in question. Achievement tests can be served as indicators of features that a student needs to work on in the feature, but the primary role of an achievement test is to determine acquisition of course objectives at the end of a period of instruction. Grondlund (1982, p. 1) states "an achievement test is

systematic procedure for determining the amount a student has learned”. According to Vallet (1977, pp. 5-6), the achievement test is similar to the progress test in that it measures how much the student has learned in the course of second – language instruction. However, achievement tests are usually not built around one set of teaching materials but are designed for use with students from a variety of different school and program.

Based on the type of test above, the writer chooses a summative test as one of the types of achievement test, beside placement test, formative test, and diagnostic test. The summative test is intended to show the standard which the students have now reached in relation to other students at the same stage. Therefore, it typically comes at the end of the course or unit of instruction. Summative assessment aims to measure, or summarize, what a student has grasped, and typically occurs at the end of a course or unit of instruction (Brown 2004, p. 6).

Summative evaluation is directed toward a much more general assessment of the degree to which the larger outcomes have been attained over the entire course, or some substantial part of it. Summative evaluation looks at mastery of several such new skills or concepts. Summative test are not reserved solely for final examination, although certainly the final examination given in most collages and certification are summative. More frequently, tests of summative nature are used two or three times within a course to contribute grades toward an overall grade reported to students and parents. (Bloom, Madaus, and Hastings 1981, p. 72).

In formulating the test, the writer prefers choosing a Computer - Based Assessment (CBA) as a media than Paper - Based Assessment. The format of the test is multiple choice items, and the content of the questions are in the form of testing the vocabulary and grammatical one. However, the other fourth English mastery like listening, speaking, reading and writing are given separately. Moreover, Computer –

Based Assessment has already been used in many aspect of interest, especially in education world. Even this computerized testing began in the early 1970s (Drasgow, 2002; Wainer, 1990). However, in this academy, the type of CBA test is rarely used by all of the lecturers because they are lack of awareness in utilizing the computers, and need more time to construct a good test. On the other hand, in facing the globalization era, the utilization of Computer Based Assessment (CBA) is commonly used by a teacher to assess his/her progress and success in teaching. To know this progress, the test can be given in the middle of the teaching learning process and in the end.

Due to the increasing use of computer in academic contexts especially in language learning, there have been many investigations on the comparability of test scores in two test different modes some of which consider different key factors influencing test results such as computer familiarity, prior attitude towards using computers, and some other factors. Therefore, in this study, the researcher specifically has two main research questions:

1. What is the advantage and disadvantage of using CBA model for KPN Students?
2. How is the result of Computer – Based Assessment on KPN Student’s achievement test?

Methodology

1. Research Design

In this study, the writer used a qualitative research. Nunan (1992, p. 3) points out that qualitative study assumes that all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic, ungeneralizable studies are justifiable and ungeneralizable study is one in which the insight and outcomes generated by the research cannot be applied to contexts or situations beyond those in which the data were collected. It means that the result of qualitative research is subjective and relative. The result of the research depends on the researcher's opinion.

2. Object of the study

The object of the study was the score report / list from the result of summative test from the fifth semester of KPN program (academic year of 2017/2018), who are coming from four classes which totally 140 students. The score list itself can be seen directly after the students finish doing the test in one hour duration. The computer system will be off and the students cannot do anything to answer the questions.

3. Type of Data

There were 2 kinds of data in this study. The main data is the print out answer sheet and the score list of English examination, and the secondary data were taken from the result of questioner which gathered from students. The questions were given in the form of Bahasa Indonesia, and there are only 15 % who return back the questionnaires.

4. Method of Data Collection

In collecting the data, the writer used two methods of collecting data. They were Library research and documentary research. The library research means the writer used library facility, read some books to get information, data and ideas related to the subject matter of this study. The documentary research means the writer tried to analyze the data gathered in the form of summative result or score list from CBA test.

5. Procedure analyzing the data

In analyzing the data, in this study was presented in qualitative way. The first step was by coding the lowest until the highest score of English test based on category A (85 – 100), B (70-84), C (60-69), D (50-59), and E (31-49). In order to ease the reading and understanding of the gathered data, so it needed a compilation and arrangement of the data. After finished, counting and calculation of data was carried out. Here, the writer calculated the data and put them into percentage. It was necessary to calculate the percentage of students whose

score was above 70 in achievement test, and the percentage of those whose score was below 70. The data which had been compiled and arranged could only give a vague idea about what the writer want to know, based on the research questions.

Findings and Discussion

Based on the result of fulfilling the questioner, the writer got some of various answer from the students related to ten given questions, and put them into advantage and disadvantage category of using CBA in measuring students English competence:

1. Advantages

- a. Timely feedback; the teacher can provide feedback easily.
- b. Automatic feedback; some forms of on-line assessment answers (i.e. multiple choices).
- c. The teacher can do Monitoring and tracking in term of student's difficulty in English
- d. Time-saving; an assessment can be created using software
- e. Computers are more accurate at scoring the tests than human beings are.
- f. Computers are more accurate at reporting.
- g. Detailed and specific feedback can be given to students during and immediately after a test.

2. Disadvantages

- a. Reduction of printing costs, particularly when tests are updated or changed
- b. Hardware and software must be carefully monitored to avoid failure during examination, and students require adequate IT skills and experiences of the assessment type.
- c. Construction of good objective tests requires skills and practice and so it is initially time consuming and because of this, testing of higher other skills is difficult.
- d. Computer anxiety; the time is very limited, and the students feels nervous in

answering the questions because it is their first experience in doing the test by CBA.

e. Students are still choosing Paper – Based Assessment than CBA

The students are given 100 multiple choice questions and the time allotment in answering the questions is about 60 minutes. There are 140 students who do the test by CBA model. From the result of the test, it can be found that there are 29% students who get score in length of 85-100, 26 % get score in length of 70 – 84, 21% get score in length of 60-69, 11% get score in length of 50-59, and 13% get score in length of 31– 49.

From the above result, it can be seen that unsatisfied result showed that only 55% students who passed the required minimum score and it means that the teacher should evaluate the teaching & learning method, developing better material, and motivate the students to study more, event though their study time spend much in physically activities rather than academic one. This is because the education system which is adopted by the institution is a semi military education.

Conclusion

A test is very important to be conducted, because through a test a teacher can get information about the achievement of his/her students in mastering the material given during one semester. Dealing with the CBA questions, not all of the students can pass it well due to many constrains and English level variety. From the result, it can be found that only 26% get the highest score, and 13 % get the lowest one. From this, the teacher should give full attention to the difficulty level of the questions, and the time allotment provided. Therefore, a teacher should consider that CBA is one of a good way in evaluating students, and it is very helpful for teacher in knowing the student's achievement. Besides, the teacher will get many advantages such as avoiding much correction time and also giving feedback

directly. By having known this test result instantly, the teacher can decide to do the remedial test in order to increase the students' achievement in English. However, the further research should be done especially in investigating the level of difficulty of the CBA questions, and its qualities such as; validity, reliability, and practically.

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