DISCRIMINATION INDEX OF TEST ITEM IN ENGLISH MID YEAR TEST OF FOURTH GRADERS OF SEKOLAH KEBANGSAAN BANDAR SUNGAI BUAYA IN THE SCHOOL YEAR 2017

Yoan Natalia Matahelumual, Dwi Winarsih, Lilia Indriani English Department, Faculty of Education and Teachers Training Tidar University yoannataliamth@gmail.com

Abstract

In teaching English, teachers use the test to evaluate or assess the students progress and understanding. In this case, sometimes the teacher writes the English test items beyond the students' ability and understanding. That is why students get confused with the test items. Therefore, the writer is interested in analyzing the discrimination index of the English mid year test items at SekolahKebangsaan Bandar Sungai Buaya, Selangor Malaysia in order to know the test given by the teacher. The objective of this research is to describe the discrimination index of English mid year test for the fourth graders of SekolahKebangsaan Bandar Sungai Buaya, Selangor Malaysia. The subject of this research is the English mid year test of the fourth graders of SekolahKebangsaan Bandar Sungai Buaya, Selangor Malaysia. The subject of this research, the writer took the questions sheet and the students' answer sheet of English mid year test for the fourth graders of Sekolah Kebangsaan Bandar Sungai Buaya in the school year 2017 and consist of 24 students. In conducting this research, the writer took the questions sheet and the students' answer sheet of English mid year test for the fourth graders of Sekolah Kebangsaan Bandar Sungai Buaya in the school year 2017. According to data analysis, the writer summed up the conclusions as follows. Based on Naga's Discrimination Index Parameter (1992) there are four test items are rejected because the discrimination index score is 0.00. It means that those four test cannot disriminate the students who who have already mastered the material and those who have not.

Keywords: English Language Testing, Discrimination Index

Introduction

Language testing is a kind of process to measure the competence or the achievement of the students in language. Creating a set of test is not as simple as it seems; there must be many qualifications or requirements to consider to make a good test with good quality for the students. It is not easy for a teacher to make a test.

In Malaysia, most of the schools are based on the Malaysian Kingdom rules for the system and teaching learning process as well. The school that the researcher did the research is Sekolah Bandar Sungai Buaya (SKBSB) which is located in Selangor, Malaysia. SKBS is one of state elementary school which based on Malaysian Kingdom rules and use 21st Century Learning. English is one of the major lesson that will be tested in *UPSR (Ujian Peperiksaan Sekolah Rendah)* or the national examination which is should be taught in school. The purpose of teaching English in SKBSB is to develop the four skills listening, speaking, reading and writing.

One of the most important aspects of teaching and learning process is evaluation. Evaluation plays an important role in the teaching-learning activities. It is an integral part of the instructional program. Through evaluation, teachers can know the students' achievement in mastering the lesson efficiently. It is considered that you cannot separate teaching and testing. In SKBSB teachers want their students to have good results at the test, so they lower the level of difficulty and actually it is not appropriate for the students. On the contrary there are some teachers who always give very difficult questions to the students, and as a result, the students get confused with the test items. Besides, sometimes there are some technical mistakes in typing or printing the test that will confuse the students.

Multiple Choice Questions are the most commonly used tool type for answering the knowledge capabilities of students in school. Item analysis refers to a mixed group of statistics that are computed for each item on a test. The item analysis helps to determine the role of each item with respect to the entire test.

Based on the explanation, the objective is to describe the discrimination index of English mid year test for the fourth graders of Sekolah Kebangsaan Bandar Sungai Buaya, Selangor Malaysia.

Methodology

This research belongs to qualitative research, since the data are presented without techniques. It is classified into evaluation research, in this case, the writer counts and classify the discrimination index of the mid-term test.

The setting of this research is in Sekolah Kebangsaan Bandar Sungai Buaya which is located in Bandar Sungai Buaya, Rawang, Selangor Malaysia. Mid year test is settled as one of the most important instrument to measure the students' achievement. Therefore, the writer chooses the English mid year test for the fourth graders to do the research. This research will be held on January 2018.

The subject of this research is the English mid year test of the fourth graders of Utarid Class in Sekolah Kebangsaan Bandar Sungai Buaya, Selangor Malaysia in the school year 2017 and consist of 24 students.

Since the data of this research is a kind of written form, then the unit of analysis of this research is sentences which are printed on the question sheet of English final examination.

Test is administered using documentation by the researcher for data collection. Documentation means collecting the files or data of related information including the result of the fourth graders' mid year test. The researcher enjoys full support from the administrators in the target Colleges of Education.

To analyse the data, the researcher followed these steps, based on Aggarwal (1986). They are:

- 1. Administer the draft test.
- 2. Identifying the score.

The researcher identify thr upper group 27% and lower group 27%. Examinees having highest and lowest scores in rank order respectively on the total test.

3. Discrimination Index

The researcher calculate each item of the proportion of the examinees correctly by using Discrimination Index formula.

Where,

RU = the number students in the upper group who responded correctly

RL = the number students in the lower group who responded correctly

- NU = the number students in the upper group
- NL = the number students in the lower group
 - 4. Interpretation of the Discrimination Index score.

The researcher interprate the DI score using the parameter that states by Naga (1992)

Finding(s) and Discussion

In the first step, the researcher had to administer the draft test by making the draft test from the students who got upper score to the lower score. Furthermore, the score were given based on the total numbers in the multiple choice students got right answer. In this multiple choice test, each number had 1 score. Therefore, the maximum score in this test was 20.

Based on the data that the researcher got from the fourth graders students of Utarid Class in Sekolah Kebangsaan Bandar Sungai Buaya English mid year test, the highest score was 19 and the lowest score was 5.

The next step according to aggarwal's theory (1986) is identifying upper 27% and lower 27%. In this step, the researcher firstly had to devided the students into two groups based on the score, from the highest score up to the lowest one. Based on aggarwal's theory (1986), in some cases it will cause the two number which have same exact number separate in different group. Even those number have same total score but back to the theory that it has to be devided into two. From the explanation above means that in this research which consist of twenty four students, there will be twelve students in upper group and twelve students in lower groups since twenty four divided into two is twelve. The table of upper group and lower group can be seen in the appendix page.

The researcher calculates the Discrimination Index using Discrimination Index formula.

In interpretation of the Discrimination Index score. There are 4 test item who got Discrimination Index score 0.00. Those are test item number one, four, nine, and also eighteen. Moreover, there are six test items that got Discrimination Index score 0.33. The test items are numberseven, twelve, fourteen, sixteen, and also nineteen. There are also seven test

31

items which got the Discrimination Index score 0.67. Those are number two, five, six, eight, ten, seventeen, and twenty. Indeed, there are only three test item which got Discrimination Index score 1.00. Those are the test item number three, eleven, and fifteen.

Based on Naga's Discrimination Index parameter (1992) states that Discrimination Index score less than or equal to0,19 are rejected. The score from0.20 to 0.29 should have full revision. Furthermore, the score from 0.30 to 0.39 only have to have little bit revision while the score more or equal to 0.40 is satisfy.

From the explanation above, the number that rejected are test item number one, four, nine, and also eighteen since those test item got Discrimination Index score 0.00. The test item that should have little revision are number seven, twelve, thirteen, fourteen, sixteen, and also nineteen because those number got Discrimination Index score 0.33. In other hand there are ten test item number which is satisfied with the Discrimination Index score 0.67 and 1.00. Those test items are number two, three, five, six, eight, ten, eleven, fifteen, seventeen, and twenty.

Moreover, there are three category of the test item based on the calculation that the researcher got from the data. They are the test item that rejected, should have little revision, and satisfy.

In teaching English, teachers use the test to evaluate or assess the students progress and understanding. In order to measure accurately, the teachers should use a good test. It is not an easy work for them to make it because there are some characteristics of a good test including discrimination index.

Discrimination index determines the extent to which the given item discriminates among examinees in the function or ability measured by the item. This value ranges between 0.0 and 1.00. It helps the teacher to analyze which test item should be revised or deleted.

From the analysis the researcher got some of the number that rejected and some of them should be revised. Based on Naga's Discrimination Index parameter (1992) states that discrimination index score less than or equal to 0.19 are rejected. The score from 0.20 to 0.29 should have full revision. Furthermore, the score from 0.30 to 0.39 only have to have little bit revision while the score more than or equal to 0.40 is satisfy. The rejected items and the items that should have little revision indicate that the test item cannot discriminate between the students who have already mastered the material and those who have not.

From the explanation above, the number that rejected are test item number one, four, nine, and also eighteen since those test item got discrimination index score 0.00. The test item that should have little revision are number seven, twelve, fourteen, sixteen, and also nineteen because those number got discrimination index score 0.33. In other hand there are ten test item number which is satisfied with the discrimination index score 0.67 and 1.00. Those test items are number two, three, five, six, eight, ten, eleven, fifteen, and seventeen.

Indeed, from twenty test item of multiple choice format in English Mid Year Test for the Utarid Class of fourth graders in Sekolah Kebangsaan Bandar Sungai Buaya only 20% test item are rejected and 30% test item needs to have little revision, while 50% are satisfied.

Conclusion(s)

According to data analysis which is explained in the previous chapter, the writer summed up the conclusions as follows. The English mid year test used for the fourth grade students at Sekolah Kebangsaan Bandar Sungai Buaya in the school year 2017, 50% of the test item has satisfy discrimination index. It is shown by the Discrimination Index score in twenty multiple choice test items that according to Naga's Discrimination Index Parameter (1992) only four test item are rejected. The number which rejected are number one, four, nine, and eighteen. Those number are rejected because the discrimination index score is 0.00 which means that those four test cannot discriminate the students who have already mastered the material and those who have not.

There are also six test items that need to have little revision. The test item which should have little revision are number seven, twelve, thirteen, fourteen, sixteen, and nineteen. While ten test items are satisfy. The number of the test item which satisfy are number two, three, five, six, eight, ten, eleven, fifteen, seventeen, and also twenty.

References

Carter, Ronald and Michael McCarthy. 2006. *Cambridge Grammar of English*. Cambridge: Aggarwal, Y.P.1986. *Statistical Methods, Concepts, Applications and Computations*. New Delhi: Sterling Publication.

Airisian, Peter W. and Michael K. Russel. 2008. Classroom Asssessment. New York: Beth Mejia.

- Alismail, Halah Ahmed and Dr. Patrick McGuire.2015.21 st Century Standards and Curriculum: Current Research and Practice.Colorado: Department Curriculum and Instruction
- Boopathiraj, C..2013. *Analysis of test items on difficulty level and discrimination index in the test for research in education*. Puducherry: Pondicherry University.
- Brown, H. Douglas.2003. Language Assessment: Principles and Classroom Practices. California: Longman.
- Etistika, Yuni Wijaya and DwiAgus Sudjimat.2013. *Transformasi Pendidikan Abad 21 sebagai Tuntutan Pengembangan Sumber Daya Manusia di Era Global*. Malang: Universitas Negeri Malang.
- Fernandes, H.J.X.1984. Testing and Measurement. Jakarta: Nasional Education Planning.
- Gronlund, Norman E. and Robert L Linn.1995. *Measurement and Assessment in Teaching, Seventhedition*. London: Merrill.
- Haryono.2016. *Teknologi Pendidikan dan Pembelajaran Abad 21*. Semarang: Pascasarjana Universitas Negeri Semarang.
- Hingrojo, Mozaffer Rahim and Farhan Jaleel.2012. *Analysis of One-Best MCQs: the Difficulty Index, Discrimination Index and Distractor Efficiency*. Pakistan: Fatima Jinnah Dental College.
- Naga, D. S. 1992. Pengantar Teori Sekor pada Pengukuran Pendidikan. Jakarta: Gunadarma.
- Ross, Dave.2017. *What We Knoe about 4Cs*.http://www.p21.org/news-events/p21blog/2293-what-we-know-about-the-4cs.(December 4th, 2017)
- SK Bandar Sungai Buaya.2017.*Peperiksaan Pertengahan tahun* 2017 *Tahun 4*. Selangor. Kementrian Pendidikan Malaysia.
- Sudijono. 2001. PsikologiPendidikan. Jakarta: CV Rajawali
- Ur, Penny.1996. *A Course in Language Teaching: Practice and Theory*. Cambridge: Cambridge University Press.
- http://www.catforms.com/pages/Item-Formats-%26-Standards.html. Download: accesed on Sunday, November 5th, 2017 at 8.50.
- http://www.p21.org/pages/21st-Century-Curriculum.html. Download: accesed on Wednesday, November 8th, 2017 at 12.22.