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AN ANALYSIS OF TEACHER MADE TEST OF DISCRIMINATION POWER OF SMAK GIOVANNI KUPANG

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Abstract

This research takes a look at item evaluation constructed through English teachers of SMAK Giovanni Kupang. Specifically it focuses on the problem of Discrimination Power of test items. The aimed of the research to know the quality of discrimination Power of the test items. Design used in this research was mix method. Data resource was semester test item of grade X. The instrument used was documents containing 40 multiple choice test items constructed by the English teacher in SMAK Giovanni Kupang, The result of this study showed that only 87.5% of discrimination Power.

Keywords. Test items, Discrimination Power, Evaluation, Test.

INTRODUCTION

Every educational program is normally ended with an evaluation. Evaluation gives information about how successful the efforts of education have been. which is intended to measure the student's performance of the educational program itself. The tool used to measure the student's performance in every educational program is usually in form of test. In the process of the teaching and learning English, testing is also considered as an essential part, which cannot be separated from the teaching and learning process. The result of teaching without testing will be useless because the objectives of learning can be evaluated by having a test. Test evaluates not only the progress and achievement of learners but also the effectiveness of the teaching materials and methods used (Chen & Varghese,2013).

In teaching and learning activities, an achievement test is a systematic procedure for determining the amount of student has learned. There are two kinds of

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achievement test; formative test and summative test. Formative test, which is also called progress achievement test, is intended to measure the progress that students are making (Hughes, 1989, p. 12). While summative test, which is also called final achievement test, are those administered at the end of a course of study (Hughes, 1989, p. 10).

In Indonesia, generally, at every end of a learning process in a period of time there must be an evaluation, and one way to evaluate it is by a test. One of the common term used by the teachers in Indonesia is multiple choice.

Tests with good items are hard to create, The writer thinks that constructing good summative test items is difficult. But, nowadays the teacher who constructs the items of the test is lack of the techniques and skill in constructing it. So the writer is motivated to conduct her study on the test item of discrimination power. The discriminating power of a test item refers to the degree to which success or failure on an item indicates possession of the ability being measured (Chellamani,2013)

This is the extent to which an item differentiates between high and low-ability test takers. Discrimination is pivotal because if the test-items can be more discriminated, it will be more reliable (Hughes, 2005, p.226). This index is used to measure to the ability of a test in discriminating the upper and the lower group of students. Upper group are students who answered correctly, and the lower group are the students who answered incorrectly. In this index, there are negative points. The negative discrimination power index indicates that the question identifies high group students as poor students and low group students as smart students. good questions are questions that can be answered correctly by upper group and cannot be answered correctly by lower group.

The problem of this research is, what is discrimination power quality of test item constructed by the English teachers of SMAK Giovanni Kupang. Thus, the aim of this research is to describe discrimination power quality of test item constructed by the English teachers of SMAK Giovanni Kupang.

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RESEARCH METHOD

The design used in this research was mix method, this study was carried out in SMAK Giovanni Kupang. The data resource of this research study was semester test item of grade X students of SMAK Giovanni Kupang. This used some procedures of as following: first, the writer scored the students' answer. Second, those scores then divided into two groups namely upper group and lower group of the students. Third, the writer counted the discrimination power to know whether each test item is poor, satisfactory, good, excellent, and negative.

To count the level of Discrimination Power, the writer used the following formula:

$D = \frac{B_A}{J_A} - \frac{B_B}{J_B} = P_A - P_B$ (Arikunto, 2013:228)

Where :

D : Item Discrimination (Discrimination Power)

B_A : Number of top test takers that have correct answer

B_B : Number of bottom test takers that have correct answer

J_A : Total participant of top test-takers

J_B : Total participant of bottom test takers

P_A : Proportion of top test takers that have correct answer

P_B : Proportion of bottom test takers that have correct answer

To know the test items is good, poor, satisfactory, excellent, or negative, discrimination power has the certain standard to decide. It is described by the following formula:

0.00 – 0.20 = Power

0.21 – 0.40 = Satisfactory

0.41 – 0.70 = Good

0.71 – 1.00 = Excelent

Negative = all of test items is not good.

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RESULT

In this section, the writer would like to present finding and discussion of analysis of test item constructed by the teachers of SMAK Giovanni Kupang. There is 40 item analysis which are taken from odd semester test of grade X. It is used to know to what extend the test item chosen discriminates the upper and lower group,

Discrimination Power

The discrimination power is represented in the following table:

Table of Discrimination Power

No	UG (B_A)	LG (B_B)	Formula $D=\frac{BA}{JA}-\frac{BB}{JB}=P_A - P_B$	DP	Interpretation
1.	10	3	$D=\frac{10}{17}-\frac{3}{17}=0{,}58-0{,}17$	0,41	Good
2.	16	9	$D=\frac{16}{17}-\frac{9}{17}=0{,}94-0{,}52$	0,42	Good
3.	2	2	$D=\frac{2}{17}-\frac{2}{17}=0{,}11-0{,}11$	0	Poor
4.	16	5	$D=\frac{16}{17}-\frac{5}{17}=0{,}94-0{,}29$	0,65	Good
5.	13	4	$D=\frac{13}{17}-\frac{4}{17}=0{,}76-0{,}23$	0,53	Good
6.	17	5	$D=\frac{17}{17}-\frac{5}{17}=1-0{,}29$	0,53	Good
7.	7	0	$D=\frac{7}{17}-\frac{0}{17}=0{,}41-0$	0,41	Good
8.	14	6	$D=\frac{14}{17}-\frac{6}{17}=0{,}82-0{,}35$	0,47	Good
9.	3	7	$D=\frac{3}{17}-\frac{7}{17}=0{,}17-0{,}41$	-0,24	Negative
10.	15	8	$D=\frac{15}{17}-\frac{8}{17}=0{,}88-0{,}47$	0,41	Good
11.	14	7	$D=\frac{14}{17}-\frac{7}{17}=0{,}82-0{,}41$	0,41	Good
12.	6	4	$D=\frac{6}{17}-\frac{4}{17}=0{,}35-0{,}23$	0,12	Poor
13.	11	6	$D=\frac{11}{17}-\frac{6}{17}=0{,}64-0{,}35$	0,29	Satisfactory
14.	3	4	$D=\frac{3}{17}-\frac{4}{17}=0{,}17-0{,}23$	0,06	Poor
15.	15	6	$D=\frac{15}{17}-\frac{6}{17}=0{,}88-0{,}35$	0,53	Good
16.	12	1	$D=\frac{12}{17}-\frac{1}{17}=0{,}70-0{,}05$	0,65	Good
17.	15	4	$D=\frac{15}{17}-\frac{4}{17}=0{,}88-0{,}23$	0,65	Good
18.	17	4	$D=\frac{17}{17}-\frac{4}{17}=1-0{,}23$	0,12	Poor
19.	8	2	$D=\frac{8}{17}-\frac{2}{17}=0{,}47-0{,}11$	0,36	Satisfactory
20.	13	4	$D=\frac{13}{17}-\frac{4}{17}=0{,}76-0{,}23$	0,53	Good
21	15	5	$D=\frac{15}{17}-\frac{5}{17}=0{,}88-0{,}29$	0,59	Good
22.	14	2	$D=\frac{14}{17}-\frac{2}{17}=0{,}82-0{,}11$	0,71	Excellent

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23.	16	1	$D=\frac{16}{17}-\frac{1}{17}=0,94-0,05$	0,89	Excellent
24.	16	12	$D=\frac{16}{17}-\frac{12}{17}=0,94-0.70$	0,24	Satisfactory
25.	15	7	$D=\frac{15}{17}-\frac{7}{17}=0,88-0,41$	0,47	Good
26.	15	7	$D=\frac{15}{17}-\frac{7}{17}=0,88-0,41$	0,59	Good
27.	17	6	$D=\frac{17}{17}-\frac{6}{17}=1-0,35$	0,65	Good
28.	7	0	$D=\frac{7}{17}-\frac{0}{17}=0,41-0$	0,41	Good
29.	8	2	$D=\frac{8}{17}-\frac{2}{17}=0,47-0,11$	0,36	Satisfactory
30.	17	9	$D=\frac{17}{17}-\frac{9}{17}=1-0,52$	0,48	Good
31.	17	13	$D=\frac{17}{17}-\frac{13}{17}=1-0,76$	0,24	Satisfactory
32.	14	4	$D=\frac{14}{17}-\frac{4}{17}=0,82-0,23$	0,59	Good
33.	13	4	$D=\frac{13}{17}-\frac{4}{17}=0,76-0,23$	0,53	Good
34.	15	2	$D=\frac{15}{17}-\frac{2}{17}=0,29-0,11$	0,77	Excellent
35.	14	1	$D=\frac{14}{17}-\frac{1}{17}=0,82-0,05$	0,77	Excellent
36.	17	6	$D=\frac{17}{17}-\frac{6}{17}=1-0,35$	0,65	Good
37.	16	5	$D=\frac{16}{17}-\frac{5}{17}=0,94-0,29$	0,65	Good
38.	16	10	$D=\frac{16}{17}-\frac{10}{17}=0,94-0,58$	0,36	Satisfactory
39.	16	1	$D=\frac{16}{17}-\frac{1}{17}=0,94-0,05$	0,89	Excellent
40.	15	3	$D=\frac{15}{17}-\frac{3}{17}=0,88-0,17$	0,71	Excellent

Table above represents the discrimination power of items test which have negative discrimination power involved 1 of 40 test items or 2.5% that must be dropped or cannot be used to test the students. It is in the test item number 9. In addition, there are 4 test item which have poor discrimination power and that must be corrected or revised. It involves 10% that is in the test item number 3,12,14,18. Thus, only some test item really good to be used to test the students. It includes satisfactory, good and excellent which have 6 or 15% that is in the number 1,2,3,4,5,6,7,8,9,10,11,15,16,17,20,21,25,26,27,28,30,32,33,36,37 and 6 or 15% that is in the test item number 22,23,34,35,39,40

The result of the discrimination power of test items constructed by the English teachers are represented by the following chart.

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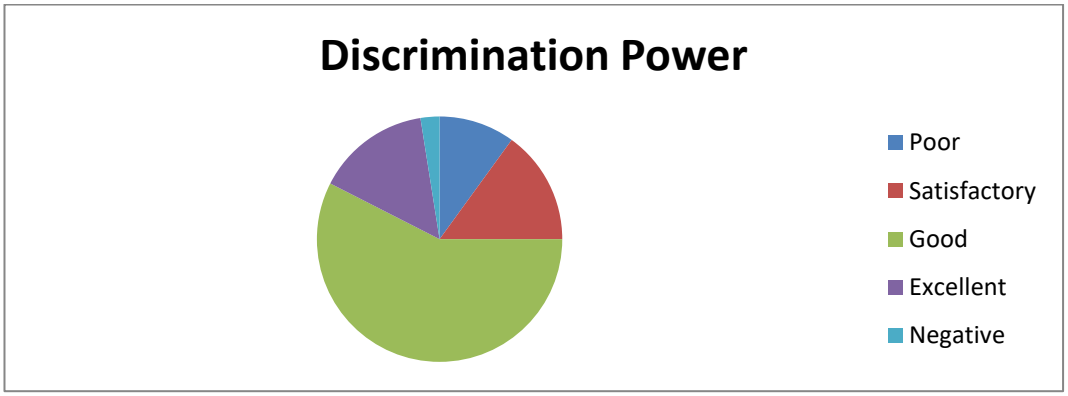

CONCLUSION

In conclusion, more than a half of the test item meet the requirement of good discrimination power. Based on the result of this test item analysis, the writer has some suggestions for the English teachers of SMAK Giovanni Kupang: 1) to revise English test item in terms of discrimination power 2) should analyze the test that has been tested to the students to know whether the test good or not to use for the next exam.

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