

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSION

In this chapter, the researcher explains the result of her research. The researcher do analysis about the quality of UKK test that has been constructed by an English teacher of 7th grade in SMP Muhammadiyah 9 Surabaya based on the characteristic of a good test, the validity include face validity and content validity, reliability, and item analysis include index of difficulty, index of discrimination and distractors.

A. Description of the English UKK test

UKK test is final test to students to the next level. The other meaning UKK is summative test that the test will be given after finished learning teaching. Muhammadiyah Surabaya is one of several schools that constructed UKK test by the teachers group of Muhammadiyah Surabaya. The students who did UKK test are all grade, as seventh, eight, and ninth grade. Here, focusing for seventh graders. The number of the students at seventh graders is 60 students.

This study used the first Teacher Made English UKK test as an object of the study. The test and the other data were collected from the English teacher of Muhammadiyah 9 Surabaya. This test was conducted on June 4th, 2013. It was conducted only two hour, at 07.30 till 9.30 am. This test was constructed by the

English Teacher of Muhammadiyah Surabaya. The test is objective test that consists of 50 multiple choice questions. The content of the test is reading skill.

B. Presentation of data

The subject of the study is the seventh graders of Muhammadiyah 9 Surabaya. The number of the students is 60 students. After the students' scores were collected, the next step is arranging the students score from high to low. To classify upper and the lower students, the score are divided half of the number of students. This makes analysis of the test item easier.

Table 4.1
Score List of Seventh class

Upper Group		lower Group	
No	Students' score	No	Students' score
1	78	1	40
2	72	2	40
3	70	3	40
4	68	4	40
5	62	5	40
6	60	6	40
7	58	7	38
8	58	8	38

9	56	9	36
10	54	10	36
11	54	11	36
12	54	12	36
13	54	13	36
14	52	14	36
15	52	15	32
16	52	16	32
17	52	17	32
18	50	18	32
19	50	19	30
20	50	20	28
21	48	21	28
22	48	22	26
23	48	23	26
24	46	24	22
25	46	25	22
26	44	26	20
27	44	27	20
28	44	28	20
29	42	29	18

30	42	30	18
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Table above shows that score of students when English UKK tests. Table above is used to make it easy to classify the upper and lower students of science class. The first column is the student's number who got high score, the second column is the score of students who is classified in upper group, the third column is the student's number who got low score, and the last is the score of students who is classified in lower group.

C. The analysis of Data

After classifying the students to the upper to the low group, the next step is analysing the validity include face validity and content validity, reliability, item analysis include index of difficulty, index of discrimination and distractor.

1. Face validity

To show the result of the face validity of the English UKK test for seventh graders of Muhammadiyah 9 Surabaya, the first step is classifying the matter to make the test itself. The second step is classifying the test items based on the criteria and then put the items that has been classified into the table and the last is concluding the result.

The test is printed in legal paper. It consists of eight pieces of paper. The cover of the test is black colour. This test is published by SMP Muhammadiyah Surabaya. The first page is used for a cover, the title of the test, date, and time when the test must be conducted, and several instructions to do the test. The second until eight page is used for reading section which consists of 50 items.

Table 1 below shows the result of the analysis of the face validity of the test.

Step	Aspect of test and questions	Explanation
1	Test looks <ul style="list-style-type: none"> • How is the cover of test? • How is the letter used in the test? • How is the test layout • How is the size of test paper used? 	<ul style="list-style-type: none"> - The test cover of this is used black colour, can be read easily. - The size of the letter in the test used 12. Can be read easily. - The test has good layout - The paper in this test is used legal paper.
2	The direction <ul style="list-style-type: none"> • How is the general 	<ul style="list-style-type: none"> - The general instructions of

	<p>instruction of the test?</p> <ul style="list-style-type: none"> • How is the specific instrument of the test? • How is the instruction for going on next text section of the next page? 	<p>this test are understandable.</p> <ul style="list-style-type: none"> - This test has no a specific instrument (tape recorder) - This test has no instruction going to the next section/ending.
3	<p>Test items types</p> <ul style="list-style-type: none"> • How many the types of the test items are choose? • How are the text presented? 	<ul style="list-style-type: none"> - In this test there only one type test, multiple choice test type. - This test has quite well presented in the layout or arrangement. But in this test, there is one number same.

2. Content Validity

The analysis of content validity of the teacher made English UKK test for the seventh graders of Muhammadiyah Surabaya uses Standard of Graduates competencies 2012. Then, the materials of the test is matched with the Standard of Graduates Competencies to know the Teacher Made English UKK test for Academic year 2012/2013 for seventh graders of Muhammadiyah 9 Surabaya

whether it fulfils the agreement of content validity or not. The analysing content validity used table specification (see appendix 3)

There are six columns in that table. The first column contains standard competence, second column contains of basic competencies, the third column contains of learning experience, the forth column contains of indicators, the fifth column contains of item test that appropriate with the basic competencies, the next column contains of the number of items test (Σ) and the last column contains the percentage of total numbers of particular items represent the elated basic competence.

According to J.B.Heaton ⁴⁵, the test can be said has a good content validity if it covers all the contents as stated in the curriculum. Based on the result of analysing content validity in appendix 4, the percentage of every aspect of learning content is conclude as follows:

1. There are 28% Or 14 items for reading which focus on announcement, invitation,
2. There are 50% or 25 items for reading which focus on descriptive and procedure text.
3. There are also 22% or 11 items test that did not cover the available materials.

⁴⁵ J. B Heaton, *writing English language test*, p.159

Based on the result above, we can conclude English UKK test that have been constructed by English teacher in 7th grade in SMP Muhammadiyah 9 Surabaya is good since 78% items test represent all materials. It is more than 50%, according to bloom if the agreement of the test is 50% or more, it can be conclude that the test has high content validity⁴⁶.

Moreover, there are 11 items or 22% all of the test did not cover the materials, they are the items test number 3, 4, 17, 18, 31, 32, 41, 46, 48, 49, 50. those item are not suitable with the indicator of standard and basic competencies and were not taught in this semester.

3. Reliability

Based on the data of appendix 5, there are six columns in the table; the first is column number of students, 60 students for the all class VII. The second column is variable X_1 (the total of the correct answer of the first split items). The third column is variable Y_1 (the total of the correct answer of the second split items). And the fourth column shows the square of X_1 . The fifth column is square of Y_1 . And the sixth column is the result of $X_1 \cdot Y_1$. Then to get reliability of test use the sperman brown pattern (see appendix 4)

⁴⁶ Bejamin Bloom S, *Handbook on Formative and Summative Evaluation of Student Learning*, 1981,(NewYork: McGraw-Hill Book Co.), page 73.

From the result of reliability of teacher made English UKK test items for academic years 2012 – 2013 for seventh graders of Muhammadiyah 9 surabaya is 0, 15. It means that reliability of the English UKK test items is not reliable.

4. The quality of item test

1. index of Difficulty

To get the data to analyse index of difficulty; the research was divided into 2 groups. The first group was upper group, they were the number of students who got good score and the other group was lower group, they were the number of students who got the bad score. The researcher could get these groups after she arranged the students' score from the upper to the lower. After the researcher got the data, she did the analysis which used by Heaton's formula: $FV = \frac{R}{N}$

Note : FV : index of difficulty

R : the number of correct answer

N : the number of students taking test

See appendix 5, there are eight Columns in the table of analysis index of difficulty and index of discrimination. The First columns contain the number of item. The Second column contains the score of student in upper group who answer correctly of each item. The third column contains the score of lower group who answer correctly of

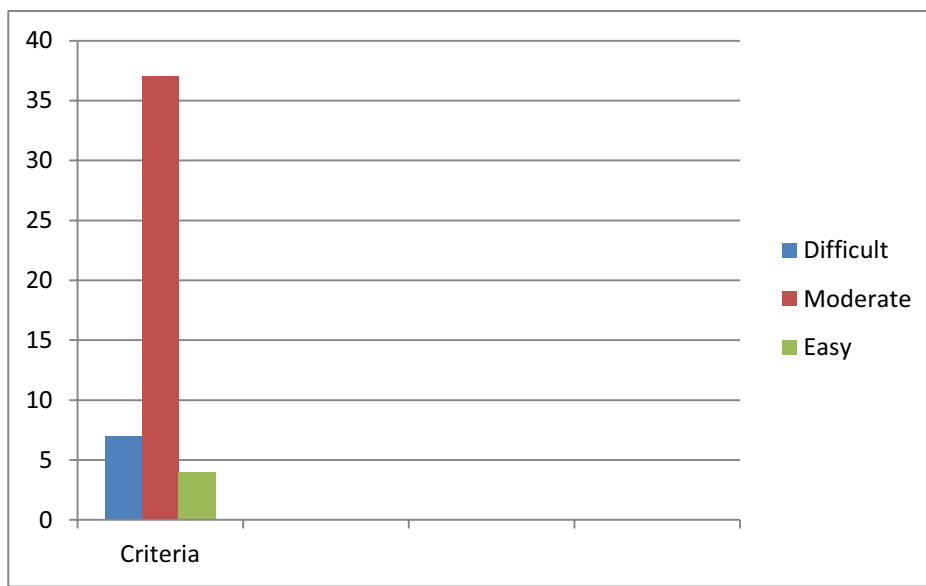
each item. The fourth column contains total of upper group and lower group who answer correctly of each items. The fifth column contains the value of index of difficulty. The sixth column contains the numbers of students in upper minus the number of students in lower group who answer correctly of each items. The seventh column contains the value of index of discrimination. The eight columns contain comment for each item of index difficulty and index discrimination.

The researcher did this analysis of the UKK test in seventh graders of SMP Muhammadiyah 9 Surabaya, they are 7A, 7B, 7C. The numbers of students are sixty students. The number of the students of three classes are taken a sample of the test. That it used to measure the index of difficulty and discrimination. The students divided into two groups as the upper group consist of thirty students and lower group consist of thirty students to.

After analysing the index of difficulty, the next step is machining the result with the criteria of index of difficulty. The analysis is organized in the following table.

Table IV
Criteria of index difficulty
VII class

Index of difficulty	Criteria	Item number	Total of item
0,00 – 0,30	Difficult	32, 35, 38, 40, 43, 44, 47, 48, 49, 50	9
0.31 – 0,70	Moderate	2, 3,4,5,6,8,9,10, 11, 12,13,14,15, 17,18,19, 21,22,23,24,25,26,27,,28, 29, 30,31,33,34,36,37,39,41, 42, 45,46	37
0,71 – 1,00	Easy	1,7, 16, 20	4



The table and chart above shows that there are 37 items has moderate level of difficulty. There are 9 items has difficulty. And there are 4 items has easy. Almost test items has moderate. It means that those items are good to be given to the students. The teacher made English UKK test items for academic years 2012 – 2013 for seventh graders of muhammadiyah 9 surabaya have acceptable index of difficulty.

2. Index discrimination

The index of discrimination is the ability to differentiate between the students who achieve well or upper group and those who achieve poor or lower group. To analyze the index of discrimination, first the students' scores are arranged from the highest to the lowest. The find the top and bottom of students' scores as upper and lower group. Finding the upper and the lower group, the number of students in upper and lower group answer the items correctly are counted, and the computing the index of discrimination.

See appendix 5, there are eight in the table of analysis index of difficulty and index of discrimination. The first columns contain the number of item. The second column contains the score of student in upper group who answer correctly of each item. The third column contains the score of lower group who answer correctly of each item.

The fourth column contains total of upper group and lower group who answer correctly of each items. The fifth column contains the value of index of difficulty. The sixth column contains the numbers of students in upper minus the number of students in lower group who answer correctly of each items. The seventh column contains the value of index of discrimination. The eight columns contain comment for each item of index difficulty and index discrimination.

To calculate the index discrimination for each item number, the formula used:

$$D = \frac{\text{Correct } U - \text{Correct } L}{n}$$

D = index of discrimination

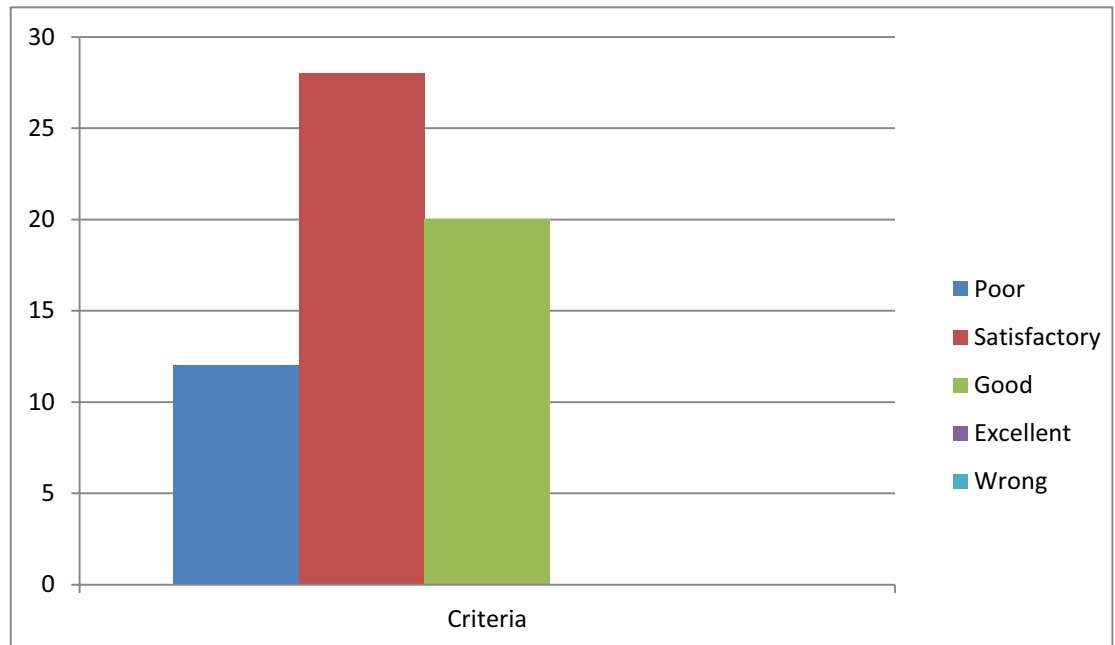
Correct U = the number of students in upper group who answer the item correctly

Correct L = the number of students in lower group who answer the item correctly

N = number of candidate of one group

Table IV
Criteria of index discrimination
VII class

Index of discrimination	criteria	Item number	Total of item
0,00 – 0,20	Poor	28, 31, 32, 34, 35, 38, 39, 42, 45, 48, 49, 50	12
0.20 – 0,40	satisfactory	1, 2, , 4, 5, 7, 8, 10, 11, 14, 15, 16, 17, 18, 19, 20, 23, 25, 26, 27, 29, 30, 40, 41, 43, 44, 46, 47,	28
0,40 – 7,00	Good	3, 6, 9, 12, 13, 21, 22, 24, 33, 36, 37,	10
0,70 – 1, 00	Excellent	-	-
-0	Wrong	-	-



Based on the table and chart, the result of index of discrimination shows that there are 12 items has poor index of discrimination, there are 28 items has satisfactory, and there are 10 items has good index of discrimination. Almost students index of discrimination are satisfactory. It means that those items are categorized satisfactory. So it didn't need revised.

3. Analyzing the Effectiveness of Distractors

Item distractors are the incorrect options in the multiple choices which district the testee from the correct answer. A good distractor will attract more students from the lower group than the upper students.

Based appendix 6, the teacher made English UKK test items in SMP muhammadiyah 9 surabaya, there are fifty multiple choice items. Those are number one until number fifty, they were contains five options. There are five columns in each table for analyzing item distractors of class VII. Those are item number column contains options for each item number, upper column contains the number of students in upper group answer the option, lower column contains the number of students in lower group answer the option, comment column contains the column comment of each option whether it is good, not good or not function.

According arikunto the distractor is chosen at least by 5% students who taking the test is called good test. ($5\% \text{ from testee} = 5\% \times 60 \text{ students} = 3 \text{ students}$)⁴⁷.

Based on appendix 7, the result of distractors shows that all of distractors have function as well because the distractor have been chosen by students over 5% from testee. So the teacher made English UKK test items for seventh graders for academic years 2012 2013 has good distractors.

⁴⁷ Suharsimi arikunto, *dasar-dasar evaluasi*, p, 223

D. Discussion

1. Face validity

Based on the result of the face validity, we can see that there are four criteria from its looks. First is how is the test's cover (this test's cover has black colour, good cover and interesting), second is how the size of letter used (the size of this test is 12 and can be read easily), third is how the test's layout (the layout of this test is tidy), and the last is How the size of paper used (this test use a legal size paper). From the directions, there are three criteria. First is how the general instruction of the test is (this test use general instruction and understandable, second is how the specific instruction every part is (every part instruction of this test is clear), and the third is how the instruction for going on to the next section or to the next page (there is no instruction going on next page or section). From the items type shows that there are two criteria. The first is how the type of the test items chosen is (the type of this test multiple-choice test items). The second is how are the text presented (this text of the test is presented quite well). From the explanation above, we can get the result that English UKK test item for academic year 2012/2013 for seventh graders of muhammadiyah Surabaya is good face validity. It means that proper to conduct to the student.

2. The Content validity

Based on the result of content validity, it concluded that the teacher-made English UKK test item for academic year 2012/ 2013 for seventh graders of Muhammadiyah 9 Surabaya has 78% items test covered the indicators of Standard of Graduates Competencies. And it is 22% items did not cover the indicators of Standard of Graduates Competencies.

According to bloom, if the test agreement is 75% or more, then it can be said that the test has high content validity. On the other hand, if agreement is less than 50% the rest is considered having low content validity⁴⁸

From the explanation above the conclusion of the result is the content validity of the teacher-made English UKK test item for academic year 2012/ 2013 for seventh graders of Muhammadiyah 9 Surabaya has good content validity since 78% items test covered the indicators of Standard of Graduates Competencies.

3. Reliability

Based on the result of reliability, it concludes that the teacher made English UKK test items for academic years 2012 – 2-13 for seventh graders of Muhammadiyah 9 Surabaya is not reliable, because reliable of the test has 0, 15. It means that the test is not reliable.

⁴⁸ Benjamin bloom S, *handbook on formative and summative Evaluation of students Learning*, 1981,(New York: McGraw- Hill Book Co)p 73.

4. Index difficulty

According to the table index difficulty, the result reported that there are 4 out of 50 items are easy, because they have index of difficulty value between 0, 71 - 1,00. These items need revised because it is too easy for the students to answer it. And there are 37 out of 50 items are moderate because they have index of difficulty value between 0, 31 – 0, 70. These items are categorized good or moderate items based on Arikunto's classification. The good items could be used in the test without revised. While, the rest are difficult items, there are 9 out of 50. They have index difficulty value between 0, 00 – 0, 30. These items cannot be used because it is too difficult for the students to answer it. So, these items need revised.

From the result of index difficulty, it can be concluded that most of items or 37 out of 50 items are moderate. They have index difficulty value around 0, 31 – 0, 70. It means that this test has good index of difficulty. So, the test doesn't need revised.

5. Index of discrimination

From the result of index discrimination, It can conclude that big number of items test are 12 items which have discrimination value between 0, 20 – 0, 40. It is categorized as poor item test. It means they still need to be redesigned because they are doubtful to use in other test. Then, there are 28

items all of the test have the discrimination value between 0,40 – 0,70 and it is categorized as a satisfactory item test. So it didn't need revised because there is no discrimination of upper student and lower students. Then, there are 10 items all of the test have discrimination value between 0,40 – 0,70 and it is categorized as a good item test. Almost students categorized as satisfactory. So, it didn't need revised. .

From explanation above, the result show that the students categorized as satisfactory because it has index discrimination value between 0,40 – 0,70. It means that there is no different between upper students and lower students. So, the test doesn't need revised.

6. The effectiveness of distractors

Item distractors are the incorrect options in the multiple choice which is distract the testee from the correct answer. A good distractor will attract more students from the lower group than the upper students.

Based on appendix 6, in the teacher made English UKK test items in SMP Muhammadiyah 9 Surabaya, there are fifty multiple choice items. Those are number one until number fifty, they were contains five options. The result of analysis distractors that the distractors of test have good distractors because the distractor is chosen at least by 5% students who taking the test.