

# Analysis Of Students' Psychological Conditions On Readiness For Implementing Computer-Based National Assessments (ANBK) At MAN 1 Yogyakarta

Arina Mana Sikana<sup>1</sup>, Siti Hadiyati Nur Hafida<sup>2,3\*</sup>, Ratih Puspita Dewi<sup>3,4</sup>, Yunus  
Aris Wibowo<sup>3,5</sup>, Muhammad Musiyam<sup>3,6</sup>, Nor Kalsum Mohd Isa<sup>7</sup>

## Author Affiliations

<sup>1,2,4,5,6</sup>Universitas Muhammadiyah Surakarta

(Department of Geography Education, Faculty of Teacher Training and Education, Universitas Muhammadiyah  
Surakarta, Indonesia).

<sup>7</sup>Department of Geography and Environment, Universiti Pendidikan Sultan Idris, Malaysia

<sup>3</sup>Center for Disaster Mitigation Studies, Universitas Muhammadiyah Surakarta, Indonesia

## Author Emails

a) [a610200052@student.ums.ac.id](mailto:a610200052@student.ums.ac.id)

b) [shnh421@ums.ac.id](mailto:shnh421@ums.ac.id)

c) [rp2229@ums.ac.id](mailto:rp2229@ums.ac.id)

d) [yaw222@ums.ac.id](mailto:yaw222@ums.ac.id)

e) [mm102@ums.ac.id](mailto:mm102@ums.ac.id)

<sup>a)</sup> Corresponding author: [shnh421@ums.ac.id](mailto:shnh421@ums.ac.id)

**Abstract.** The Ministry of Education and Culture decided to improve the quality of education, one of which is by increasing the literacy skills of students through a new program in education, namely ANBK. The implementation of ANBK uses a Computerized Adaptive Testing (CAT), where the CAT in ANBK will display question items with the results of the questions that have been worked on by students. The purpose of this research is to find out how students' psychological conditions affect the readiness in implement ANBK test. This research uses descriptive research with a quantitative approach, with a sample size of 30 and uses purposive sampling data collection techniques. The research results show that students' readiness for implementing ANBK is included in the ready category, and the psychological condition of students regarding their readiness for implementing ANBK at MAN 1 Yogyakarta is also included in the ready category. This shows that the majority of students are in the ready category to take part in implementing ANBK. Meanwhile, based on the results of the correlation test that has been carried out, it shows that the psychological condition of students and the readiness to implement ANBK are not related to each other. This is shown by the correlation results of  $-0.023 < 0.05$ , which means there is no relationship between the psychological condition of students and the readiness to implement ANBK in MAN 1 Yogyakarta.

## INTRODUCTION

Education is part of one of the elements of a nation's development, the progress of a nation can be seen from the good and bad quality of education which will have a direct impact on the quality of its graduates. Education has the aim of developing a noble personality and skills needed in society (1). Along with the current globalisation, the challenges in the world of education are so diverse that it requires adaptability to optimal innovation and being able to adapt to rapid paradigm shifts (2). So that a policy effort is needed in the form of quality control, with the aim that education in the future has an education system that is more relevant, directed, effective, and efficient and able to develop to answer the dynamics and challenges of an ever-evolving era. By looking at these conditions, the Ministry of Education and Culture has determined to improve the quality of education, one of which is by improving literacy skills in students.

UNESCO defines literacy as the ability to read and write, improve knowledge and skills, think critically in solving problems and the ability to communicate effectively to develop potential and participate in community life. One of the things that affects education is the level of students' ability and willingness to read. The level of interest in reading in Indonesia is still in the very low category, this is evidenced by the assessment of the

Organisation for Economic Co-operation and Development (OECD) which has conducted an assessment every three years in PISA (International Programme for Student Assessment), Indonesia becomes a PISA participant in each period. In 2022 Indonesia was ranked 69<sup>th</sup> out of 81 countries, with a reading literacy score of 359, when compared to Singapore which scored 543 and ranked 1<sup>st</sup>, showing that Indonesia is still very far away (3). This is enough to prove that the low level of educational literacy in Indonesia. Looking at the survey results, there must be a systematic literacy movement to improve the literacy of Indonesian children. The effort to improve literacy at the school level taken by the Indonesian government is the implementation of ANBK (4).

The government implements education evaluation through the ANBK programme, intended to improve the quality of education by capturing the inputs, processes and outputs of learning in all education units. ANBK has 3 assessments, namely the Minimum Ability Assessment (AKM), Personality Survey, and Learning Environment Survey which are carried out according to the schedule in each school (5). AKM which is followed by students has the aim of measuring students' literacy and numeracy skills, character surveys to measure attitudes, habits and values as non-cognitive learning outcomes. In the context of understanding the profile of Pancasila students, namely faith, devotion to god Almighty, noble character, global diversity, independence, mutual cooperation, critical and creative thinking. The neighbourhood survey aims to measure the quality of learning and the school climate that promotes learning.

The Indonesian Ministry of Education, culture, Research and Technology (Kemendikbudristek) has issued regulation of the Minister of education, Research and Technology of the Republic of Indonesia No. 17 of 2021 concerning National Assessment that in order to educate the nation's life, it is necessary to map and continuously improve the quality of the education system so that it can encourage learning that fosters reasoning power and encourages continuous improvement in the quality of education. It is necessary to carry out national assessments as well as strategies for education personnel or teachers used during the learning process so that they can attract students interest in understanding concepts and deepening the lessons they have received. Through assessment in measuring learners competencies in depth, cooperation between teachers and learners in building commitment in the learning process, the content presented by the teacher is not only understood by students at a glance but can form the expected competencies after the learning process has been carried out.

The implementation of the Merdeka Belajar curriculum in educational units requires educators to be able to understand the concepts and implementation of the Merdeka Belajar curriculum. One of the assessments carried out by the government in evaluating and providing follow-up to the evaluation results is the ANBK (6). The implementation of ANBK is a substitute for the computer-based national exam (UNBK) which is carried out at all levels of education. This has been supported by the law to replace the national exam with a national evaluation. ANBK in high school does not determine student graduation, because the national evaluation is not given to final year students, it is only given to students randomly selected by the Ministry of education and culture who can take ANBK, namely grade XI. ANBK is carried out nationally, which means that it is carried out thoroughly at all school levels within the scope of the unitary state of the Republic of Indonesia.

Psychological condition is one of the aspects that affect student assessment results, this psychological condition is related to psychological psychology. ANBK is one of the new assessments, which is implemented in 2021/2022, ANBK uses a second generation system, namely Computerized Adaptive testing (CAT), where CAT in ANBK will display question items with the results of questions that have been done by students, meaning that the higher the score obtained by students, the more difficult the next level of questions will be, and vice versa if the score obtained by students is low, the next level of questions is easier (7). With this new assessment, students feel that it is something that they do not fully understand how it implemented and its technicalities. Of course, this new thing affects the psychology including students emotional level, self confidence, and interest and motivation, which is one of the influences on students potential in the implementation of assessment given by teachers (8).

Students psychological factors such as students emotional levels, self confidence and students interest and motivation will greatly affect how the implementation of ANBK take place. The material questions contained in ANBK are different from the material questions that students learn every day, so teachers must make student feel interested in the assessment in order to achieve success in implementing ANBK (9). Interest and motivation determine the results of the assessment obtained, where interest itself affects learning, if student do not have an interest in learning about the assessment, then students will not learn the assessment as well as possible.

MAN 1 Yogyakarta is one of the schools that ranks 57 at national level under the auspices of the Ministry of religion with the same curriculum as the high school curriculum in general with the special feature the Islamic Religious education gets more priority than the curriculum applied in the high school environment. MAN 1 Yogyakarta has been organising Computer Based National Assessments (ANBK) since 2021, Taufik Zamhari, M.Sc as the head of Curriculum explained that "The Implementation of ANBK activities aims to compile an evaluation of the education system at the education unit level or that the city/district and provincial levels". With

the implementation of ANBK, the researcher is interested in conducting a study entitled Analysis of Students Psychological conditions towards readiness for ANBK Implementation.

## METHOD

This research uses descriptive research with a quantitative approach. The sampling technique used purposive sampling with certain considerations. In the implementation of ANBK, there were only 50 students from 9 classes whose mechanism was directly selected by the Ministry of Education and Culture with the aim of being able to present the quality of school education. Data collection was carried out September- November 2023 at MAN 1 Yogyakarta which is located at Jl. C. Simanjuntak No. 60, Terban, Kec. Gondokusuman, Yogyakarta City, Yogyakarta Special Region 55223. This study describes the results of psychological analysis of MAN 1 Yogyakarta student which include: emotions, self confidence and interest and the analysis of the implementation of ANBK which includes: the level of readiness of ANBK implementation, facilities and infrastructure as well as ANBK constraints.

The research used the following procedures: (1) developing the questionnaire, (2) distributing the questionnaire, (3) analysing the questionnaire and (4) drawing conclusions. The questionnaire was prepared based on three psychological indicators and the application of ANBK. In this study using statistical analysis to process data on the level of psychological Condition of students in the Application of ANBK MAN 1 Yogyakarta, the statistical test used in the person correlation test, where the calculation is done to determine the relationship between two variables.

**TABLE 1.** Indicator Table of Students Psychological Condition Questionnaire

| Variabel indicator        | Sub Indicator  |
|---------------------------|--|
| Student's Emotional Level | 1. Can't concentrate<br>2. Unable to understand the material presented by the teacher<br>3. Not being able to do the problems<br>4. Not confident and feel worried self confidence                               |
| Self Confidence           | 5. Have an optimistic outlook in solving problems<br>6. Believe in onesown ability to solve ANBK problems<br>7. Responds to diverse situations and conditions in a good and positive way interest and motivation |
| Interest and Motivation   | 8. A sense of enjoyment<br>9. Asareness to study without being told<br>10. Giving attention  |

Source: (9)

**TABLE 2.** Table of ANBK Implementation Indicators

| Variable Indicator  | Sub Indicator   |
|---|---|
| Readiness in facing ANBK  | 1. Sosialisation by teachers regarding ANBK<br>2. Readiness in facing ANBK<br>3. Familiarty with assessment<br>4. Excitement when facing ANBK<br>5. Material assistance by the teacher                |
| ANBK Supporting Facilities and Infrastructure<br>ANBK Obstacles | 6. Adequate facilities and infrastructure<br>7. Network problems during ANBK activities<br>8. Feeling difficult with ANBK questions<br>9. Little implementations time<br>10. Difficulty in doing ANBK |

Source: (10)

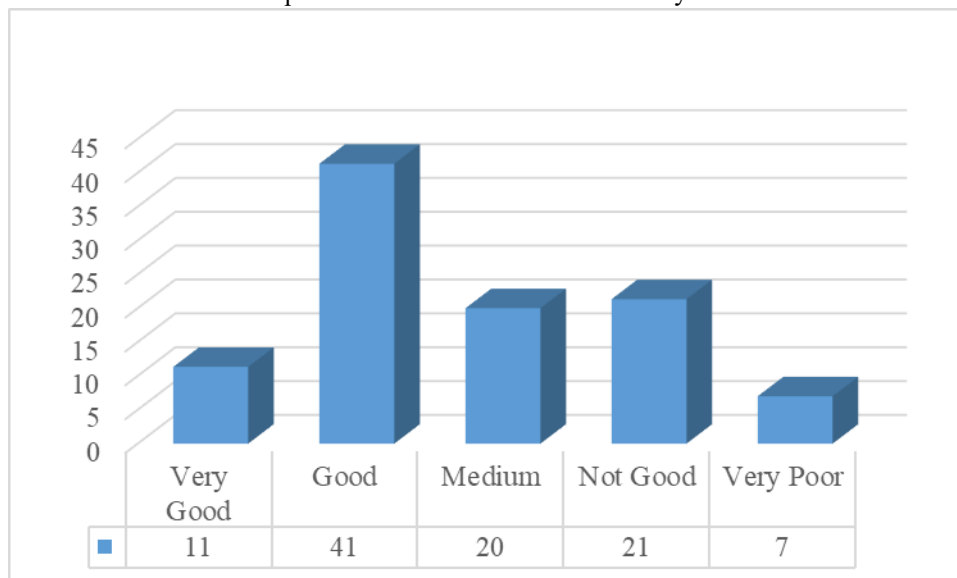
## RESULT AND DISCUSSION

This study aims to determine whether the psychological condition of students affects the implementation of ANBK at MAN 1 Yogyakarta. The scores of each variable will be calculated and analysed using descriptive statistics and to determine the relationship between two variables will be analysed.

### Level of Psychological Condition of MAN 1 Yogyakarta

#### Student Emotion Level

This study aims to determine whether the psychological condition of students affects the implementation of ANBK at MAN 1 Yogyakarta. The scores of each variable will be calculated and analysed using descriptive statistics and to determine the relationship between two variables will be analysed.

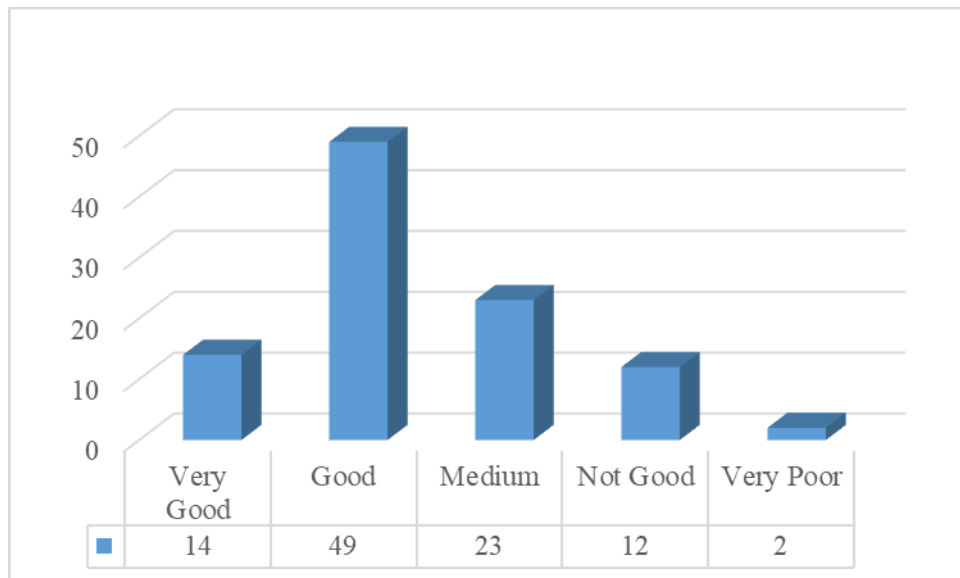


**FIGURE 1.** Student Emotion Level

Based on figure 1, it can be seen that 41% of 50 Students have an emotional level in learning included in the Good category. There are 21% of 50% learners have an emotional level this is Not Good. There are 20% of 50 learners have a moderate level of emotion. There are 11% of 50 learners have Very good emotions, and as many as 7% of 50 learners have emotions in the Very poor category.

#### Self Confidence level

The level of self confidence of MAN 1 Yogyakarta students is in the Good category, this can be seen in Figure 2 below:



**FIGURE 2.** This is the second figure of self confidence level

Based on figure 2, it can be seen that the level of self confidence of students in 49% of 50 students have a level of confidence in the Good category. There are 23% of 50 learners have a moderate level of self confidence, there are 14% of 50 learners have a very good and poor level of self confidence and there 2% of 50 learners have a very poor level of self confidence. It can be concluded that learners on average have a good level of self confidence.

### Interest and Motivation

The level of interest and motivation of MAN 1 Yogyakarta students is in the Good category, this can be seen in the figure 3 below:



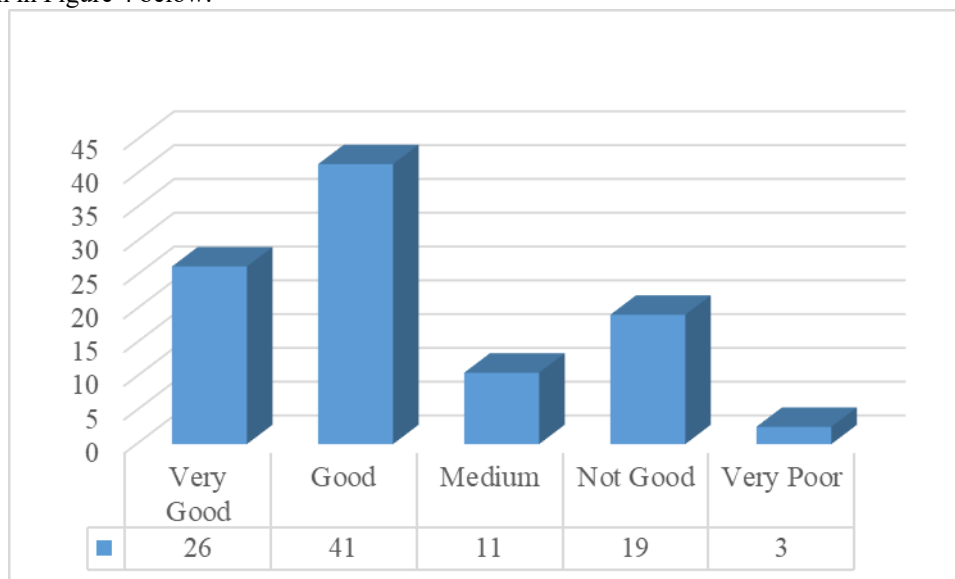
**FIGURE 3.** Interest and Motivation

Based on Figure 3, it can be seen that 43% of 50 students have interest and motivation in learning in the Good category. There are 24% of 50 learners have interest and motivation in learning included in the Medium category. There are 16% of 50 learners have interest and motivation in learning included in the Less Good category. There are 15% of 50 learners have interest and motivation in learning in the Very Good category. There are 2% of 50 learners have interest and motivation in learning in the Very Poor category.

## Implementation of ANBK

### Readiness to facing ANBK

The level of readiness to face ANBK of MAN 1 Yogyakarta students is included in the good category, this can be seen in Figure 4 below:

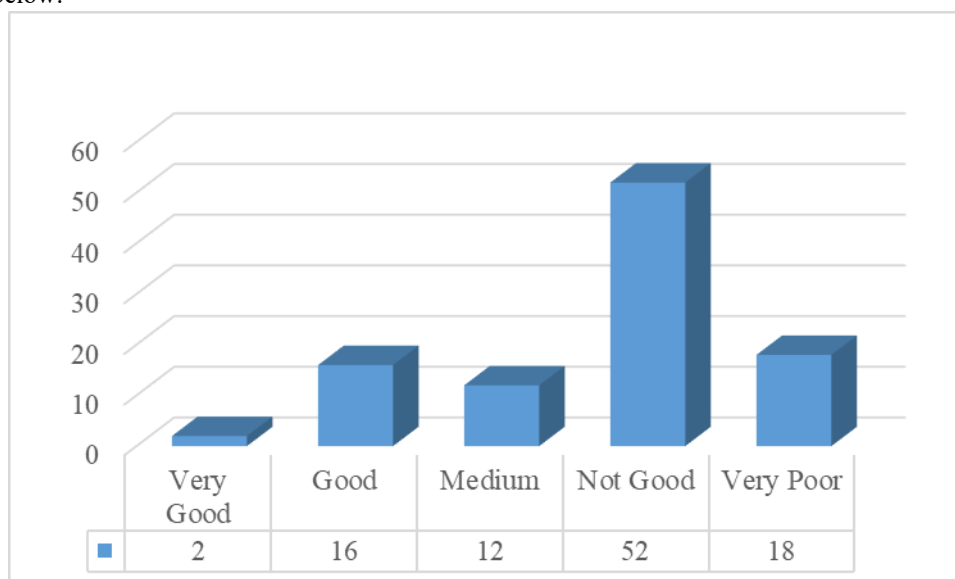


**FIGURE 4.** Implementation of ANBK

Based on Figure 4, it can be seen that there are 41% of 50 students have readiness in facing ANBK included in the Good category. There are 26% of 50 learners have readiness in facing ANBK included in the Very Good category. There are 19% of 50 learners have readiness in facing ANBK included in the Less Good category. There are 11% of 50 learners have readiness in facing ANBK included in the Medium category. There are 3% of 50 learners have readiness in facing ANBK included in the Very Poor category.

### Facilities and Infrastructure

ANBK facilities and infrastructure for MAN 1 Yogyakarta students are in the poor category, this can be seen in Figure 5 below:



**FIGURE 5.** Facilities and infrastructure

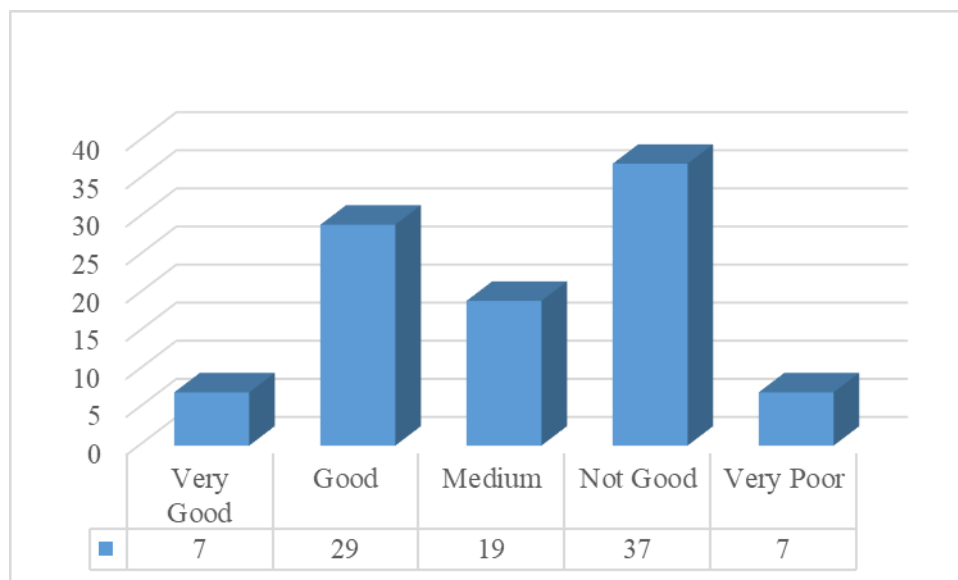
Based on Figure 5, it can be seen that there are 52% of 50 students in using facilities and infrastructure included in the Less Good category. There are 18% of 50 students in using facilities and infrastructure included in the Very



Poor category. There are 16% of 50 students in using facilities and infrastructure included in the Good category. There are 12% of 50 learners in using facilities and infrastructure included in the Medium category. There are 2% of 50 learners using facilities and infrastructure included in the Very Good category.

### Constraints in the Implementation of ANBK

The obstacles in the implementation of ANBK for MAN 1 Yogyakarta students are in the poor category, meaning that there are no serious obstacles that hinder the implementation of ANBK, this can be seen in Figure 6 below:



**FIGURE 6.** Constraints in The Implementation of ANBK

Based on Figure 6, it can be seen that there are obstacles in the implementation of ANBK by 37% of 50 students in the Less Good category, which means that there are not many obstacles experienced by students. There are 29% of 50 learners experiencing ANBK obstacles in the Good category. There are 19% of 50 learners experiencing ANBK obstacles in the moderate category. There are 7% of 50 students experiencing ANBK obstacles in the Very Poor and Very Good categories. This means that in the implementation of ANBK there are still several obstacles that hinder the implementation of ANBK, which are included in the moderate category, meaning that there are obstacles but not severe and very inhibiting in the process of implementing ANBK at MAN 1 Yogyakarta.

### The Relationship between students psychological Condition and Readiness to Implement ANBK

The normality test can be said to be normally distributed if the significance value is  $> 0.05$  and is said to be abnormal if the significance value is  $< 0.05$ . In table 3, the normality test using the Kolmogorov Smirnov method shows that the significance value is 0.619 for the psychological condition variable and 0.164 for the ANBK application variable, this means that the data obtained is normally distributed.

**TABLE 3.** Table Normality Test

|                                  |                | Student Psychology | Implementation ANBK |
|----------------------------------|----------------|--------------------|---------------------|
| N                                |                | 50                 | 50                  |
| Normal Parameters <sup>a,b</sup> | Mean           | 38.38              | 36.98               |
|                                  | Std. Deviation | 4.553              | 4.382               |
| Most Extreme Differences         | Absolute       | .107               | .158                |
|                                  | Positive       | .072               | .158                |
|                                  | Negative       | -.107              | -.102               |
| Kolmogorov-Smirnov Z             |                | .755               | 1.118               |
| Asymp. Si. (2-tailed)            |                | .619               | .164                |

Data can be said to be homogeneous if the significance value is  $> 0.05$  and not homogeneous if the significance value is  $< 0.05$ . Based on the results of the homogeneity test, the significance value obtained is  $0.398 > 0.05$ , meaning that the data on psychological conditions and the application of ANBK are homogeneous.

**TABLE 4.** Table Homogeneity Test

| Levene<br>Statistic | df1 | df2 | Sig. |
|---------------------|-----|-----|------|
| 1.088               | 10  | 34  | .398 |

This relationship serves as a basis for the test decision-making process if the significance value of the linearity deviation is greater than or equal to 0.05, it can be concluded that there is a relationship between the two variables (X and Y), otherwise also the significance value is less than or equal to 0.05, it can be concluded that there is no linear relationship between the variables (X and Y). Based on table 6, it shows that the linearity deviation value is 0.091 which means it is greater than 0.05, it can be concluded that there is a linear relationship between the psychological variables of students and the application of ANBK.

**TABLE 5.** Table Linearity Test

**ANOVA Table**

|  |                   |                                | Sum of<br>Squares | df | Mean<br>square | F     | Sig. |
|--|-------------------|--------------------------------|-------------------|----|----------------|-------|------|
| Implementation<br>ANBK<br>Students<br>psychology | Between<br>Groups | (Combined)                     | 437.130           | 17 | 25.714         | 1.633 | .113 |
|  |                   | Linearity                      | .504              | 1  | .504           | .032  | .859 |
|  |                   | Deviation<br>from<br>Linearity | 436.626           | 16 | 27.289         | 1.733 | .091 |
|  | Within<br>Groups  |                                | 503.850           | 32 | 15.745         |       |      |
|  |                   | Total                          | 940.980           | 49 |                |       |      |

The results of the person correlation test of students' psychological conditions and the implementation of ANBK in Table 6 show that the sig value of person correlation is 0.873 and greater than the r table value. This means that there is a relationship between the psychological condition variables and the implementation of ANBK. The person correlation value of 0.-023 has no correlation.

**TABLE 6.** Table Correlation Test

**Correlations**

|                     |                     | Students<br>Psychology | Implementation<br>ANBK |
|---------------------|---------------------|------------------------|------------------------|
| Students Psychology | Pearson Correlation | 1                      | -.023                  |
|                     | Sig. (2-tailed)     |                        | .873                   |
|                     | N                   | 50                     | 50                     |
| Implementation ANBK | Pearson Correlation | -.023                  | 1                      |
|                     | Sig. (2-tailed)     | .873                   |                        |
|                     | N                   | 50                     | 50                     |

## The level of Students Psychological Condition in the Implementation of ANBK at MAN 1 Yogyakarta

The psychological condition of students is one of the most important aspects in the implementation of learning. Psychological is part of psychology, psychology it self is a study that discusses a person's behaviour and thoughts, this is in line with the opinion of (11) psychology is defined as the scientific study of behaviour and processes. Psychological conditions are one of the factors for self-assessment of their abilities. This is in line with previous research (12) which says that psychological conditions are one of the factors to encourage more advanced educational changes, in line with research (13) which says that psychological conditions have a huge impact on ongoing learning. Figure 1 shows the results of data analysis that has been carried out on the level of students' psychological conditions in the application of ANBK at MAN 1 Yogyakarta in the Good category on indicators of self-confidence level, interest and motivation level, and at the level of students' emotions. This high number explains that the psychological condition of students in the implementation of ANBK is classified as Ready. Factors that influence students' psychology such as thinking ability, emotions, self-confidence and interest and motivation greatly influence the creation of positive conditions for the implementation of ANBK. This factor becomes one of the beliefs that students have in the readiness of ANBK implementation.



## **ANBK Implementation Level at MAN 1 Yogyakarta**

ANBK is a government program with the aim of mapping the quality of primary and secondary school education throughout Indonesia. Assessment is very important to improve the quality of education, this is in line with research (14) which states that assessment is carried out as a forum to support student learning and also ensure student learning outcomes to meet skill needs in the 21st century. Based on the results of the analysis, the level of readiness of students in the implementation of ANBK is classified in the Good category, which means Ready. The readiness of the facilities and infrastructure used is still classified as Not Good, this is due to an error system on the server so that it can be interpreted that the facilities and infrastructure in the implementation of ANBK are less supportive, which means that there is still a need for improvement of the facilities and infrastructure that will be used in the implementation of ANBK, because facilities and infrastructure are one of the important aspects in an assessment implementation so that the results obtained can also be maximized, this is in line with (15) which suggests that ANBK readiness is a factor that greatly affects the results. However, when viewed from the conditions in the field, MAN 1 Yogyakarta already has adequate supporting facilities and infrastructure ranging from computers and networks, in certain conditions that can hinder the implementation, namely the school network which is sometimes not strong (weakened) so that it is quite hampering the implementation of ANBK. This can be overcome by each learner using an internet network that is used personally. ANBK is a type of non-cognitive diagnostic assessment where this assessment is carried out to find out how the psychological, emotional and social conditions of students. This means that this assessment is more directed at how the personal condition of students will affect their achievement in school, this is in line with research conducted by (16). To use this "Old Style Equation" as a "template," highlight the entire line, then use cut and paste to the new location. Note that the equation number will automatically update (increment).

## **Relationship between Students Psychological Conditions in the Implementation of ANBK at MAN 1 Yogyakarta**

Based on the results obtained from the Normality Test using one sample Kolmogorov Smirnov, to determine the distribution of data used is normal or deviant. It shows that in the variable of students' psychological condition and the variable of ANBK implementation, the data obtained is normally distributed. This is in line with research (17) which says that the normality test is carried out to determine whether the data obtained is normally distributed or not.

Statistical analysis of homogeneity test is one of the analyses contained in the prerequisite test, which aims to determine whether the variation of data from the sample population has the same variation or not, just like the normality test, this is in line with research (18). The homogeneity test that has been carried out shows that between the variables of psychological condition and readiness for ANBK implementation show homogeneous results.

Based on the results of the tests that have been carried out, it shows that the sig value of the Linearity Deviation is greater than r table, which means that the psychological condition variable and the readiness for ANBK implementation have a linear relationship. This is in line with research conducted (19) from the linearity test of the dependent and independent variables, the calculated r value is greater than the r table, which means that the two variables have a linear relationship. The statistical test results on the person correlation test show that the sig value is smaller than r table, meaning that the two variables are not correlated, this is in line with research (20) which states that the r count obtained is smaller than r table, meaning that there is no significant relationship between the two variables between psychological conditions and readiness for ANBK implementation has no relationship. How much the psychological condition of students does not affect the readiness for ANBK implementation.

## **CONCLUSION**

Based on the results of research conducted on the Psychological Condition of students towards the Readiness of ANBK Implementation at MAN 1 Yogyakarta, its included in the Psychologically ready category, this shows that most students are in the ready category to follow the implementation of ANBK. While the readiness of student in the implementation of ANBK is also included in the ready Category with a percentage of 42%, then for facilities and infrastructure it is included in the high category with the existence of obstacles to the implementation of ANBK, namely with a percentage of 52%, which means that there is still a need for improvement because there are still many obstacles felt by students during the implementation of ANBK. And

for the obstacles to the implementation of ANBK by 37%, it means that there are still many obstacles encountered by students in the implementation of ANBK so that it can hinder its implementation and also the results obtained by students. Meanwhile, based on the results of the correlation test that has been carried out, it shows that between the psychological condition of students and the readiness of ANBK implementation are not related to each other, this is shown by the correlation result of  $-0.023 < 0.05$ , which means that there is no relationship between the Psychological Condition of Students and the Readiness of ANBK Implementation at MAN 1 Yogyakarta.

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