

## **Students' Perceptions of Computer-Based National Assessment in Improving Literacy and Numeracy**

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Article History: Received on 14 December 2024, Revised on 5 February 2025,  
Published on 26 February 2025

**Abstract:** The purpose of this study was to evaluate students' perceptions of Computer-Based National Assessment (ANBK) and how it impacts students' literacy and numeracy skills. ANBK is one of the government's efforts to evaluate students' competencies using information technology. This study was conducted through direct observation and interviews with 30 students in grade V of elementary school. The results showed that the majority of students saw ANBK as an interesting tool and helped them learn. This study concluded that ANBK can help improve students' basic skills in addition to improving their literacy and numeracy skills, although there were some problems with technology accessibility and students' mental readiness. In the future, it is recommended to develop training programs and provide better technology facilities in schools to support better implementation of ANBK. Through this study, based on students' perceptions of ANBK activities, it can be categorized as good or positive where students are able to find information, understand information, and evaluate and reflect in literacy activities, while in numeracy activities students can reason critically by using logic in solving problems in everyday life.

**Keywords:** Computer Based National Assessment, Literacy, Numeracy, Students' Perception

### **A. Introduction**

Education is an effort to build and develop the qualities possessed by humans in an interesting, comprehensive, enjoyable, and perfect way. The functions and objectives of education include creating the next generation of the nation, a tool for measuring the concern of the next generation, a tool for transforming values, providing information and understanding, preventing criminal behavior, and forming the character of the nation (Nur'ainah et al., 2022). The success of education implementation can be known from a measuring instrument. In 2003, the National Examination (UN) became the standard for measuring the success and graduation of students. The reality is that the UN policy as the only indicator of learning success during the educational unit is considered ineffective, which tends to have a negative impact because it gives rise to various cheating so that it is only a formality without

considering the interests and talents of students. The cheating that is often done is cheating behavior. In line with this, it is explained that the cheating that is done during the implementation of the UN includes mass cheating using short messages; chat groups; cheat sheets; and body language, in addition to the mode of leaking questions and answer keys carried out by the school's success team or tutoring (Sari & Sayekti, 2022).

In the era of globalization and rapid technological development, literacy and numeracy are very important basic skills for every individual. This ability not only plays a role in the world of education, but also in everyday life and the world of work. The Indonesian government is currently updating the education curriculum. This update was made because the existing curriculum has not been able to meet student competencies. It is proven that the basic abilities of Indonesian students according to PISA data, in 2018 were still low, namely numeracy skills ranked 72, science skills ranked 72, literacy skills, ranked 70 out of 78 countries (Aditana et al., 2023). Recognizing the importance of these skills, the Indonesian government launched the Computer-Based National Assessment (ANBK) program as an effort to improve the quality of education in the country. ANBK not only aims to measure students' academic achievement, but also to encourage the development of literacy and numeracy among students (Cipta et al., 2023).

The basis for implementing ANBK is an assessment program for the quality of each school, madrasah, and equivalent program at the elementary and secondary levels. The quality of educational units is assessed based on basic student learning outcomes (literacy, numeracy, and character) as well as the quality of the teaching and learning process and the climate of educational units that support learning. This information is obtained from three main instruments, namely the Minimum Competency Assessment, character surveys, and learning environment surveys. Assessments need to be carried out to improve the quality of education (Setiyowati et al., 2022). This assessment is designed to produce accurate information to improve the quality of teaching and learning, which in turn will improve student learning outcomes. National assessments produce information to monitor a) the development of quality over time, and b) gaps between parts of the education system (e.g. gaps between socio-economic groups in educational units. Gaps between public and private educational units in a region, gaps between regions, or between groups based on certain attributes). National assessments aim to show what should be the main goal of educational units, namely the development of student competence and character. National assessments also provide an overview of the essential characteristics of an effective educational unit to achieve these main goals (Maghfirah et al., 2023).

The ANBK program is in the spotlight in the context of its effectiveness in encouraging the development of literacy and numeracy. Therefore, it is important to understand how ANBK activities are perceived by the two main groups involved in

the education process, namely teachers and students. The teacher's perspective can provide insight into teaching strategies and challenges faced in implementing ANBK, while the student's perspective will describe how they receive and respond to the activities (Asmarni & Zakir, 2023)

This study aims to explore the effectiveness of ANBK activities in improving literacy and numeracy in students through reviews from teachers and students. Numeracy literacy is defined as the ability to apply number concepts and arithmetic operation skills in everyday life and the ability to interpret quantitative information in the student's environment (Khasanah et al., 2021). Numeracy literacy as knowledge in the skills to (1) use various numbers and symbols related to solving practical problems, and (2) analyze various information displayed in the form of graphs, tables, diagrams, or charts and then use the results of this interpretation to predict and make decisions (Patriana et al., 2021).

By conducting an in-depth analysis of both perspectives, it is hoped that a comprehensive picture can be obtained regarding the impact of this program on learning in schools. Through this research, it is hoped that there will be recommendations that can be used to optimize ANBK activities so that they are more effective in achieving the expected educational goals (Asmarni & Zakir, 2023). Overall, it is hoped that this research will not only contribute to the development of literacy and numeracy in Indonesia, but also become material for consideration for better education policies in the future (Prasetya et al., 2022).

## **B. Methods**

This study aims to determine the effect of ANBK in improving literacy and numeracy according to student perceptions. The method used is descriptive qualitative as a description of the researcher in studying the analysis of the implementation of ANBK (Nisa et al., 2023). Descriptive research is research that aims to describe, record, analyze, and also interpret the conditions that are happening. This research was conducted using qualitative research methods. Qualitative research is a type of research that is based on post positivism and is used to conduct research in the natural environment. Researchers use researchers as the main tool, and data collection is carried out by triangulation, and data analysis is inductive and qualitative. The results of qualitative research emphasize the importance rather than generalization (Putri & Eliya, 2022).

In collecting data, researchers conducted direct observations and interviews at elementary schools in Kertapati District, Palembang City, where the respondents to be studied were in grade V. Researchers observed how schools conducted ANBK activities, from preparation and learning activities to evaluation. After that, researchers conducted open interviews with students who participated in ANBK activities, students had the opportunity to answer questions freely. Data were

collected on students' reading habits at school (Sujarweni, 2014). This study aims to explain how fifth grade elementary school students view the cognitive process of AKM reading literacy.

### **C. Results and Discussion**

#### **Observational Research Results**

The results of the study through observations on how schools prepare ANBK systematically. The results of the researcher's observations are directly shown below:

<b>Observation Result</b>	
No	Observation result
1	The school has 29 Chromebooks, 45 AKM books are lent to students, the school conducts socialization in facing AKM, and the students' AKM simulation is accompanied by 2 grade V teachers, proctors and computer technicians.
2	Student learning activities, learning to use chromebooks and familiarizing themselves with literacy and numeracy
3	To evaluate whether the school has conducted more complete socialization regarding ANBK, the school will organize learning and provide internet quota to support ANBK activities.

The results of interviews with 30 grade V students regarding the ANBK literacy and numeracy activity process can be seen below:

<b>Interview Results</b>	
No	Interview Results
1	A total of 30 students who participated in the ANBK activity stated that the questions presented were quite long, but for literacy they were still easy to understand. When facing numeracy questions, 9 children said the questions were quite difficult to understand.
2	As many as 30 students said that the questions were quite easy to understand in the literacy section because the questions were short, while numeracy required high accuracy and logic.
3	Students said that so far, the questions in ANBK are still easy to understand. But there was a slight disruption to the internet network.

#### **Observation Results**

Observations were conducted directly at SDN 212 Kertapati District, Palembang City, as respondents the researcher took students from class V. Observations were conducted together with the principal, proctor, technicians and homeroom teachers of class V so that all parties involved in ANBK activities better understand the school, can directly explain each observation made by the researcher. From the observation, the school must prepare four things, provide chromebooks and internet for students to simulate working on AKM questions, prepare books with AKM questions for student practice at school and at home, and ensure that students consistently carry out AKM simulations with the help of teachers.

The activities carried out in dealing with ANBK which is the main focus of the school is introducing and teaching students how to apply chromebooks. Through observation, there are still some who are still confused and stiff in using chromebooks. Next, there is a habit of reading texts from AKM books that students read every day before learning begins. Every Thursday, a learning simulation is held regarding ANBK by applying chromebooks, AKM books and websites as additional learning resources (Nur'ainah et al., 2022).

The evaluation conducted by the school in facing the ANBK activities for the following year to assess the preparation of ANBK, namely by directly informing students and parents about ANBK so that students understand what they will face. The teacher plans that ANBK must be integrated during learning, so that ANBK is oriented during learning. After that, the school will hold learning using chrome books, AKM books and websites with the same techniques as before. Finally, the school increases the internet quota so that there are no network disruptions when implementing ANBK.

### **Interview Results**

As a result of interviews conducted with 30 students from grade V, the researcher asked how students' perceptions of seeing the components in the ANBK activity process regarding literacy and numeracy. As many as 21 out of 30 students stated that the text displayed in the literacy questions made it easy to find information quickly and accurately because they read it with great concentration beforehand so that they could answer the questions correctly. They also said that the text read was packaged in simple language, so that students could understand it easily. Even so, when students faced numeracy questions, there were children who said that story-based calculation questions required very high concentration, so that there were students who felt that numeracy was a difficult question to work on. This shows that students have an early level of literacy understanding, namely they can find, identify, and describe concepts or information from the texts they study. The types of texts presented include reviews, descriptions, explanations, descriptions, and analyses. In numeracy, the presentation of story questions requires solving everyday life problems with high logic and understanding (Nurlitawati & Purnomo, 2023).

Furthermore, to understand the information, 21 out of 30 students stated that the text presented was easy to understand quickly and accurately. However, they stated that they would read the text repeatedly if they wanted to understand it. Many students believed that they could answer questions by finding and understanding information. However, they said that to understand the text at the cognitive level, it took a long time for students to understand it well. They usually read the text repeatedly if they wanted to understand it (Napfiah et al., 2023). Next, evaluation and reflection, where 21 out of 30 students stated that they could conclude the text as a whole if they read it repeatedly. They also said that they could retell the story they

read, especially if the text was interesting and could attract students' attention.

#### **D. Conclusion**

Based on the results of research in elementary schools in Kertapati District, Palembang City regarding the perception of fifth grade students towards the ANBK activity process in improving literacy and numeracy. The results of this study are that fifth grade students' perceptions of the ANBK activity process in improving literacy and numeracy generally have positive perceptions, where students are able to find information, understand information, and evaluate and reflect on reading texts, in addition students can also think critically, logically and solve problems in numeracy texts. Students also get facilities and infrastructure to improve literacy and numeracy skills marked by the habit of reading literacy before starting learning and the existence of ANBK training activities that use chromebooks, AKM books and the internet.

#### **E. Acknowledgement**

The author would like to thank all parties involved in the preparation of this article, especially the Universitas PGRI Palembang. Hopefully, this article is useful and we are open to suggestions for improvement in the future.

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