

# The Effectiveness of the Use of Belajar.Id Form Applications in the Preparation of Digital-Based Numeracy Questions for Mathematics Subject Educators at Smp Negeri 15 Surakarta

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**Abstract:** With the development of technology that is increasingly becoming a challenge for education in today's digital era, educators or teachers and students or students in this era must be able to communicate and adapt to the times, in terms of technological developments, it must be directly proportional to the mastery of competencies that require completion. problems with high thinking. With the Corona Virus Disease 19 (Covid-19) pandemic, the government through the Minister of Education and Culture of the Republic of Indonesia issued two policies through Circular Letter No. 3 of 2020. Along with the development of Information and Technology as well as the internet network, learning can be done online. So many terms such as e-learning emerged, namely learning using electronic devices. more than 2 years of learning using online technology, both teachers and students who are used to using hardware and software technology. In the even semester of the academic year, the new school policy is allowed to conduct face-to-face learning with very strict health protocols. based on online learning experience, teachers still use Software that has been provided by the Ministry of Education and Culture, Research, Technology and Higher Education, namely Belajar.id, especially at SMP Negeri 15 Surakarta where there is a Form menu that can be used to make test questions starting from making daily questions, UTS and UAS on the grounds that they do not have to be in the form of print a lot and can take advantage of Computer Laboratory facilities that can be used to make assessments to students or learners. Based

**Keywords:** Learning.id,AKM,Numeracy

## 1. Introduction

Education in the 21st century, namely education that leads to digital learning, is learning that integrates Information and Communication Technology into all joints at the Education unit level.

With the development of technology that is increasingly rapidly becoming an educational challenge in today's digital era, educators or teachers and students or students in today's era must be able to communicate and adapt to keep up with the times, in terms of technological developments, it must be directly proportional to mastery of competencies that require solving problems with high thinking.

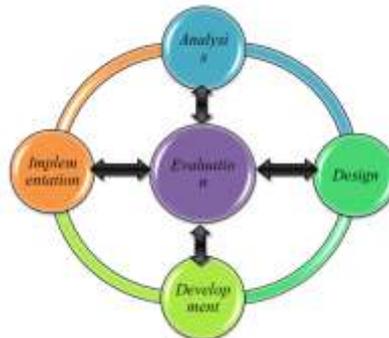
With the Corona Virus Disease 19 (Covid-19) pandemic, the government through the Minister of Education and Culture of the Republic of Indonesia issued two policies through Circular No. 3 of 2020. Along with the development of Information and Technology as well as the internet network, learning can be done online. So many terms such as e-learning emerged, namely learning using electronic devices. more than 2 years of learning using online technology, both teachers and students who are used to using hardware and software technology. In the even semester of the academic year, the new school policy is allowed to conduct face-to-face learning with very strict health protocols. based on online learning experience, teachers still use Software that has been provided by the Ministry of Education and Culture, Research, Technology and Higher Education, namely Belajar.id, especially at SMP Negeri 15 Surakarta where there is a Form menu that can be used to make test questions starting from making daily questions, UTS and UTS on the grounds that they do not have to be in the form of print a lot and can take advantage of the Computer Laboratory facilities that can be used to make assessments to students.

## 2. Research Method

The type of research used in this research is research and development. R&D is a process or steps for developing a new product or improving an existing product that can be accounted for. (Sujadi, 2003:164).

According to Sugiyono (2016: 407) development research is a research method used to produce certain products, and is used to test the effectiveness of a product. Thus, this study aims to be able to test the effectiveness of the research products carried out.

In this case, the researcher follows the ADDIE model media development procedure which is presented in the diagram below:



In this research, the researcher uses the ADDIE development method because this development model has advantages in systematic stages of work. Each phase is evaluated and revised from the stages passed, so that the resulting product becomes a valid product. The stages in the study using ADDIE consisting of the Analysis stage, Design, Development, Implementation and Evaluation. The analysis stage consists of two stages, namely the needs assessment stage and front-end analysis. product. The development stage is the stage for the process of making the design a reality, meaning that this stage is everything that is needed and that supports the process of using the application software. Implementation is a real step to apply application software to the design / drawing to be made. Evaluation is a process to see whether the resulting product is more effective or not.

### Research Procedure

There are 5 steps in the ADDIE development model, namely:

a. Stage of Analysis (Analysis)

The main activity at this stage is to analyze the need to use the Belajar.id application form.

b. Stage of Design (Design)

Activities at the stage of determining competence and implementation related to the content of the material used will be delivered at the training using the learning application.id

c. Development Phase (Development)

The development stage is the realization stage in the preparation of the instrument and design design of the studi.id application. and questions that have been designed at the design stage are developed based on the information obtained from the analysis stage.

d. Implementation Phase (Implementation)

This stage is carried out to determine the effectiveness directly by the user and to test the user's response to the learning.id application.

e. Evaluation

This stage is to assess the feasibility of the study.id application software in making numeracy questions.

#### Methods and Data Collection

Data collection techniques used in this study were observation and questionnaires.

1. Observation

This observation technique is carried out with the aim of knowing the suitability between the learning.id application and the numeration questions that will be made.

2. Questionnaire (Questionnaire)

Questionnaire is a technique or method of collecting data indirectly, namely the researcher conducts questions and answers with respondents. The instrument or data collection tool is also called a

questionnaire containing a number of questions that must be answered by the respondent. The use of the questionnaire in this study was to test the effectiveness of the application belajar.id form.

### 3. Results And Discussion

The belajar.id application is a learning platform published by the Ministry of Education and Culture and the Ministry of Education and Culture. The learning account.id is useful for learning to facilitate face-to-face and remote teaching and learning activities. To access various learning platforms.id participants must have a learning account. Educators, Students and other educators can use learning consisting of a user ID and password to access various learning applications.

This learning account can be used by students, educators and education staff from various education units, ranging from PAUD, SMP, SMA, SMA, SMK, SLB and equality.

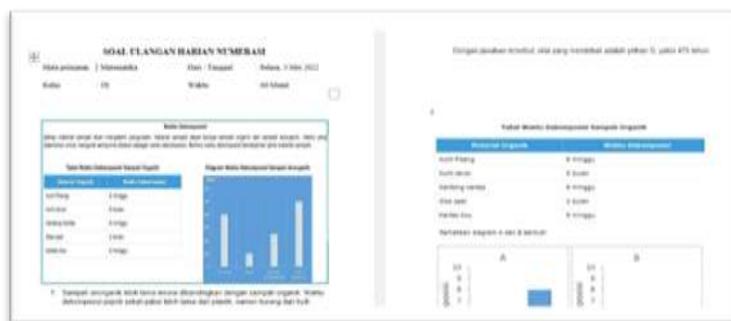
The effectiveness and this research uses the ADDIE model. The results of each stage are:

#### 1. Analysis(Analisis)

The initial stage of the researchers conducted an analysis of observations at SMPN 15 Surakarta by communicating directly with the principal and teachers. before getting to know the learning.id platform for making Daily Test questions, it was still manually, which was typed using the Microsoft Word application after that it was printed out on a paper, after that it was distributed to students to work on.

#### 2. Design (Perencanaan)

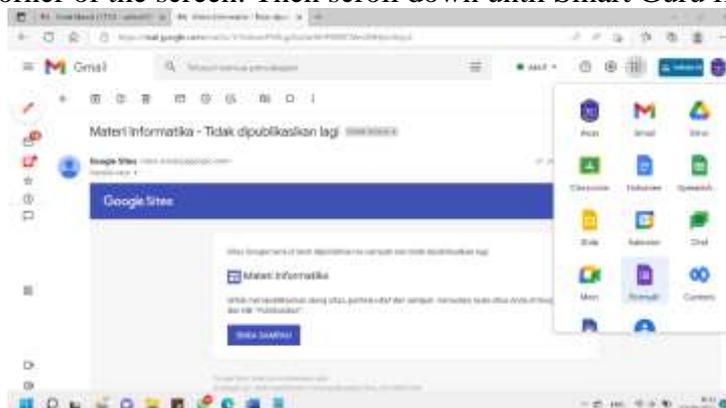
After making observations in the form of interviews with teachers at SMPN 15 Surakarta, that in the process of making questions, especially the AKM Numeration Questions in Mathematics, they still use conventionally by typing after the printouts have just been distributed to students to work on.



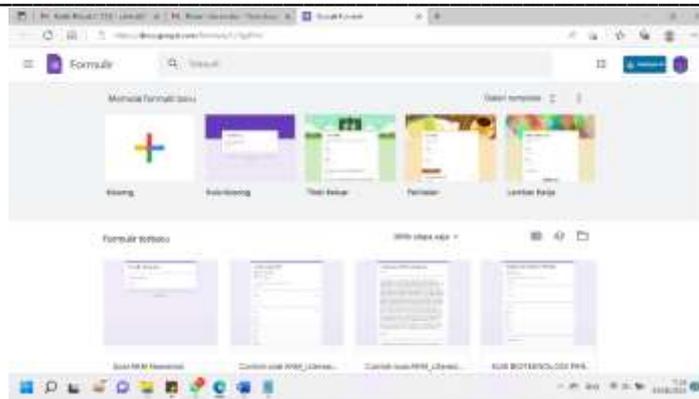
The following is an example of a question made by a Mathematics subject teacher

3. The following is the development of making AKM Numeration questions with the google form application with the platform belajar.id:

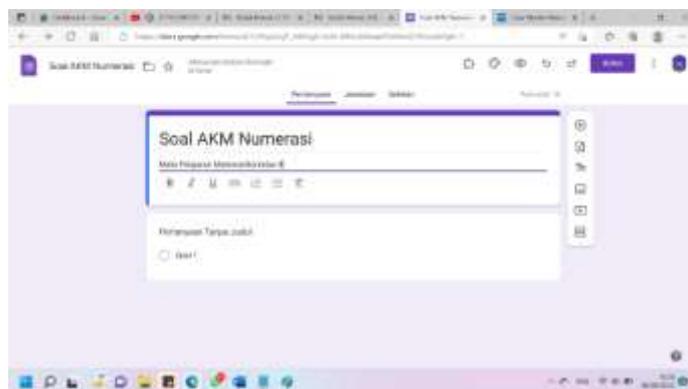
1). Open the browser type the keyword “google form/forms.” The second way to open the form is to click on the 9 dots in the upper right corner of the screen. Then scroll down until Smart Guru finds forms.



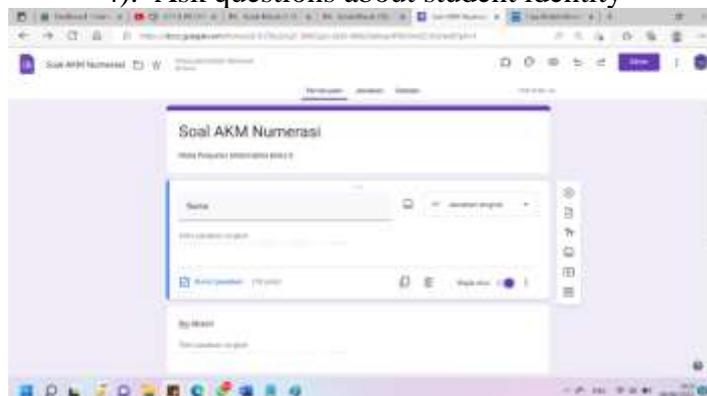
2). After the form opens, click the (+) sign which writes blank or blank.



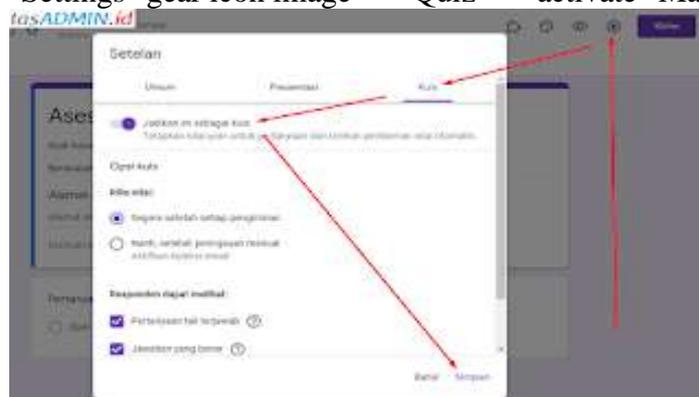
3). Name the question in the upper left corner. How to click on the words "untitled form."



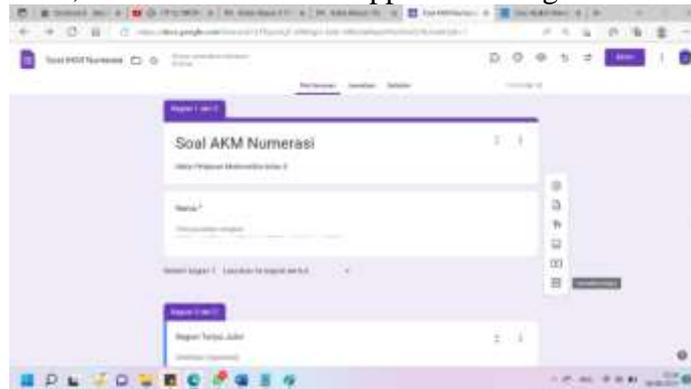
4). Ask questions about student identity



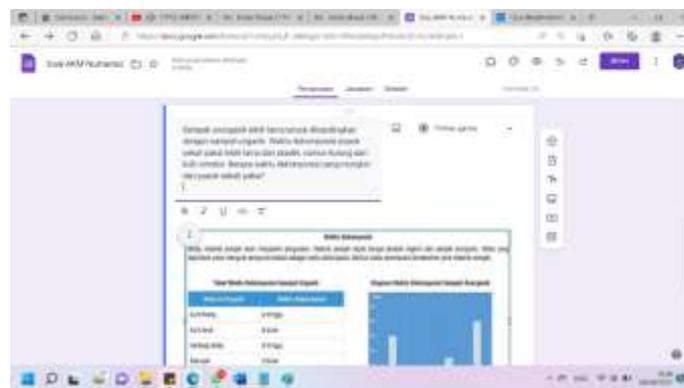
5). Next select the menu "Settings" gear icon image --- "Quiz" --- activate "Make this a quiz" ---- "Save"



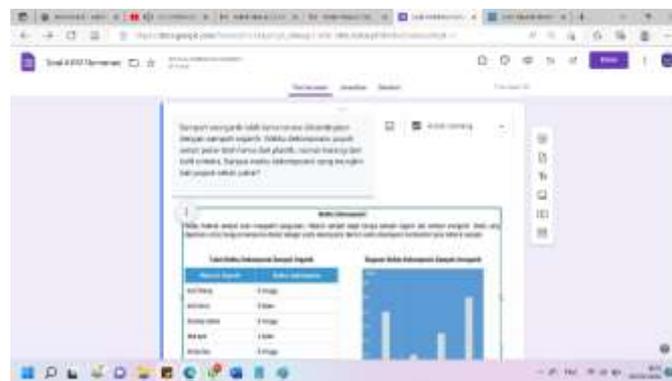
6). Add "Section" to separate Student Identity data. The addition of share is intended to make the quiz look neat, a "Next" button will appear to change sections.



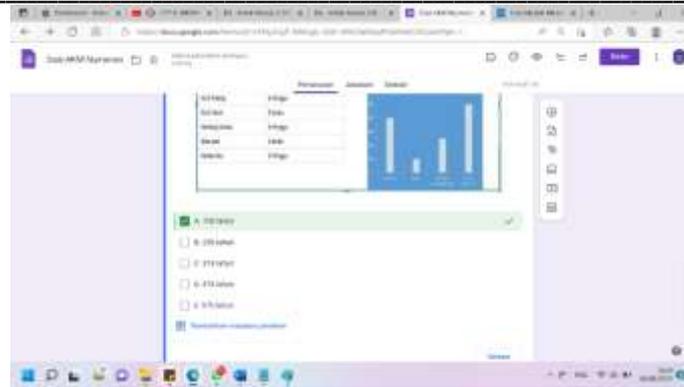
7). You can add pictures to the AKM questions that you make.



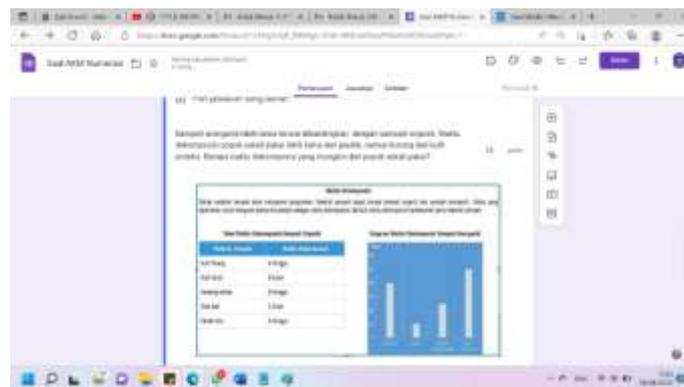
8). Complex Multiple Choice can also use the tick feature, by selecting the "Check Box" question type.



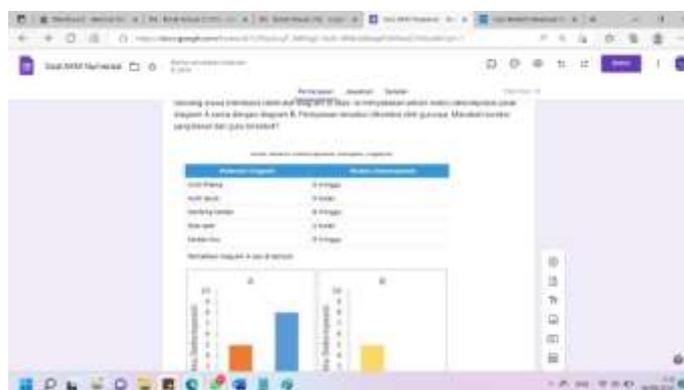
9). After all the questions are finished, we proceed to determine the answer key and the number of points. Click on the "Answer Key" menu.



10). For the student identity question, determine the score is 10 zero points.



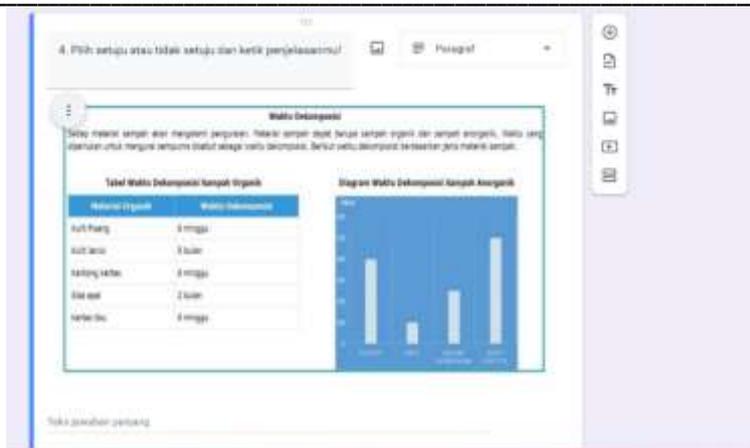
11). Multiple Choice can also use click one of the answers, by selecting the type of question "click on the circle".



12). Short answer, fill in the answer box provided



13). Questions answered yes or no and gave the reason



14). To display a message when students have finished working on the AKM quiz, adjust the "Settings" menu --- "Presentation" --- fill in the "Confirmation Message"



15). After everything is done, click "Send" --- "Chain Icon" --- "Copy" the AKM quiz link ready to be distributed to students via WhatsApp, Telegram, Google Classroom, Google Sites or others.

#### 4. Implementation

In this implementation stage, the researcher conducted a workshop with the teachers at SMP N 15 Surakarta

#### 5. Evaluation (Evaluation)

Based on research conducted on several teachers or educators, especially Mathematics at SMP Negeri 15 Surakarta who participated in the Workshop on the use of the Belajar.id platform in community service that we did last year, the following results were obtained:

1. It takes a Google form feature on the learning.id platform that is easy and practical to learn, to help teachers in self-development, especially in making AKM questions in Mathematics Subjects to improve technology mastery in supporting digital-based learning.
2. Most of the teachers who attended the workshop seemed happy, because in this activity they gained new knowledge on how to make easy and fast digital-based AKM Numerical Questions, which can later be implemented in the evaluation of learning to students.

#### 4. Conclusion

Based on the research and discussion above, it can be concluded that the use of the learning.id platform can improve teacher competence in mastering digital technology, so that teachers at SMP Negeri 13 Surakarta can support an independent curriculum to learn about digital learning.

The development of training media The learning.id platform uses the ADDIE development model which is simple and structured systematically so that the stages of development can be more easily understood.

Suggestions from researchers for further product development research are as follows:

1. Teachers or Educators of SMP Negeri 13 Surakarta, to further improve and develop themselves in

mastering the learning.id platform for the digital learning process, not only for Mathematics but for all subject teachers to master technology, especially the learning.id platform.

2. Researchers hope that there will be developmental research carried out to the effect on students in increasing student motivation in following Mathematics Subjects, especially in the matter of AKM Numeration.

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