

## PROBLEMS OF MATHEMATICS LEARNING ON THE ALEF PLATFORM IN CLASS VII MTS NEGERI 4 KUTAI KARTANEGARA

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### ABSTRACT

This study aims to find out the problems of teachers, students, and teacher efforts in facing problems in the implementation of mathematics learning on the Alef Platform in class VII MTs Negeri 4 Kutai Kartanegara. This is based on problems in learning mathematics with the use of the Alef Platform. Alef Platform is a learning medium specifically designed to engage students by providing a learning experience by watching videos, playing, and practicing questions. This research is qualitative study with Miles and Huberman model. Data were collected uses observation, interviews, and documentation and data validated by uses triangulation techniques. Based on the results obtained, (1)Problems experienced by teachers were the implementation of the learning process in the preliminary activities were still not smooth, lack of creativity of teachers when using the media, teachers cannot reduce the learning features, lack of objective learning outcomes, and the lack of an objective assessment on the Alef Platform. (2)The Problems experienced by students were the number of students who forgot the password, the learning video looked very monotonous, the game features were not in accordance with the ability of students, the questions presented on the Alef Platform were so difficult to lead students to a lazy condition of doing the questions so that student's learning motivation decreased, the student did not see the existing explanations if the student answered the wrong practical feature, and students cannot ask if having difficulty to the Alef Platform. (3)Efforts made by teachers to overcome the problem that the teacher always gave directions to the writing forgot password, how to download documents, and the teacher re-explained the material that had not been understood by the students.

**Keyword:** Alef Platform, Mathematics Learning, Problematics

### INTRODUCTION

Online learning has become a demand in the world of education since the last few years along with the advancement of the development of science and technology. This is a challenge for teachers in carrying out learning activities in schools and it is undeniable that the rapid progress of science and technology requires schools to continue to follow changes and utilize technology in the form of learning media. Learning media can be used as a tool by teachers to deliver learning. The use of appropriate media in delivering the material will give good results (Hasan et al. 2021). One of the learning media that has developed with the changing times is internet-based media. Internet-based media become a reference and provide new innovations in carrying out an interactive and effective learning process. One example is the Alef Platform.

In July 2021, the Ministry of Religious Affairs of the Republic of Indonesia introduced a learning media known as the Alef Platform in collaboration with Alef Education in the United

Arab Emirates which has created digital learning media for madrasah students and all teachers in Indonesia. This Alef platform has only been tested in the 7th grade of the madrasah. Alef platform is suitable for distance learning, face-to-face learning, and blended learning using the GASING method (easy, fun). Alef platform is to help madrasah students learn mathematics by displaying educational videos and games, taking into account students' previous learning, in addition to Providing many evaluation questions, activities, and exercises (Al Arood and Aljallad 2020).

MTs Negeri 4 Kutai Kartanegara is a junior high school in Samboja district, Kutai Kartanegara Regency, East Kalimantan. This school utilizes e-Learning as a learning medium. Learning activities in this school use the Alef Platform as a form of utilizing e-Learning in the implementation of learning. Starting from learning planning, implementing the learning process, to evaluation. The implementation of the learning process is the implementation of the learning implementation plan, including preliminary, core and closing activities (Rusman 2017). In the learning process, students are given assignments by the teacher to complete watching learning videos, playing and practice questions. In the process of evaluating learning outcomes, it is required to thoroughly evaluate students in terms of students' understanding of the material that has been given (Fatimah, Chan, and Sofwan 2021).

Based on the results of the researcher's initial observations with students using the Alef Platform, the author obtained information that students had difficulty in solving the problems contained in the platform even though there were learning videos, the existing learning videos only provided little information about the material. Practice questions or play on the Alef Platform there are 10 to 20 questions that students must do. The understanding test on the platform consists of 5-10 questions where each student finishes doing 1 question the Alef Platform provides a video of discussing the question. The final exercise on the platform is a repetition of the understanding test, making it easier for students to find the answer and directly copy the answer. Students sometimes go through question exercises or play because they think that it is a question exercise that does not enter the teacher's assessment.

There have been many studies that have examined the problems of learning mathematics using e-learning media. However, previous research by other researchers on the problem of using e-learning media such as Google Classroom, Zoom, et all, and there are differences in schools that researchers research. So, the research conducted here is about the problems of learning mathematics with the use of the Alef Platform.

Based on the results of observations with students related to the problems of learning mathematics with the use of the Alef Platform, there are allegations of other problems with the use of the Alef Platform. Therefore, further research is needed on the Problems of

Mathematics Learning on the Alef Platform in Class VII MTs Negeri 4 Kutai Kartanegara.

## **METHOD**

This type of research is descriptive qualitative research. The subjects in this study were students of class VII A, VII B, and teachers who taught mathematics lessons in class VII MTs Negeri 4 Kutai Kartanegara. Class VII A and VII B students were chosen as research subjects because Class VII A and VII B students received mathematics learning using the Alef Platform and were selected based on student learning outcome documents using the Alef Platform based on the level of student learning achievement ability in the previous material with good predicates, sufficient, and needed guidance to get data on various student problems using the Alef Platform. The selection of classes and the selection of 3 students in classes VII A and VII B are based on the advice of the mathematics subject teacher.

The object of study is a variable or what is the point of concern of a study. The object in this study is the problem of learning mathematics on the Alef Platform. The data collection techniques uses in this study were in the form of observation, interviews, and documentation. Observation is carried out by making observation guideline sheets and interviews are conducted by making interview guideline sheets related to mathematics learning with the use of the Alef Platform in class VII. The next stage is the collection of documentation, which is a complement to data collection through observation and interviews such as syllabus, lesson plan, school conditions, and documentation of learning activities.

The data analysis technique in this study uses Miles and Huberman techniques, namely data reduction, data presentation and data verification (Hardani et al. 2020). At the data reduction stage, the data reduction carried out is to collect special data on mathematics learning problems on the Alef Platform at MTs Negeri 4 Kutai Kartanegara. At the data presentation stage, it presents the results of data reduction, namely mathematics learning and mathematics learning problems on the Alef Platform at MTs Negeri 4 Kutai Kartanegara. At the data verification stage, it is carried out by drawing conclusions about mathematics learning problems on the Alef Platform and teachers' efforts in dealing with mathematics learning problems with the use of the Alef Platform. Then for the data obtained to be more valid, checking the validity of the data uses triangulation techniques, namely comparing and cross-checking between the data obtained during observation or observation of learning implementation with the use of the Alef Platform with the results of interviews obtained by researchers with teachers and students and supported by documentation obtained by researchers.

## RESULT AND DISCUSSION

Mathematics learning conducted by the teacher when the researcher made observations, it seemed that the teacher was planning the learning process so that the learning process becomes more directed. Teachers prepared learning tools in the form of syllabus and lesson plans that contain learning competencies to be achieved, preparation for learning, learning media, and learning resources uses during learning, namely with internet devices and computers through the Alef Platform.

The implementation of learning uses the Alef Platform such as watching videos, playing games, and doing practice questions is carried out online through the Alef Platform. The materials taught by the teacher during the study were quadrangular and triangular. Learning is carried out using the Alef Platform. During the process of learning mathematics, students are directed to conduct learning in the school's computer room.

### a. Introduction

The class leader had to lead his friends to give greetings to the teacher, and then the teacher had to lead his friends to pray. Hence, the teacher conveyed the learning objectives after the teacher had checked the attendance of the student. At the next meeting, the teacher related the learning activities that will be carried out with the student experience. Next, teacher unlocked the material and the understanding test on the student's performance in the Alef Platform. Students are welcome to use their student account to log in to the Alef Platform. Based on the results of the study, it can be informed that students are still guided to log in on the Alef Platform.

### b. Core activities

In the core activities, students are welcome to watched learning videos of quadrangular and triangular material. In the material there are several sub-materials and each sub-material there is a learning video that students must watch first to get to the next session, namely games. When the student had been finishing watching the video, the teacher invited the student to play games on the games feature. The games feature on the Alef Platform provides 20 minutes of processing time for 20 questions. The teacher only allows students to do one to two questions. After students were finished play the games, students had answer the questions on the Alef Platform. The questions available on the Alef Platform are in the form of multiple-choice questions. Students choose the correct answer and if the student had to choose the wrong answer, usually the Alef Platform was provided an opportunity for students to choose the correct answer until there are 2 choice options left, namely the right or wrong answer, there is a discussion feature so that students knew how to do the question.

c. Closing activities

The closing activity given by the teacher was to ask the students the material they had learned earlier, and the students had to volunteer to answer. The class appreciated their answer. If the student had not understand the material, the teacher was invited the student to ask questions. Students always asked if they do not understand the learning material. The teacher had been instructing the students to continue the lesson in the next sub-material and there was a deadline that had been set by the teacher. Then the teacher gave a greeting to end the learning due to the change of subject.

Teachers conducted a learning evaluation. Teachers give regular assignments at each meeting because on the Alef Platform there is a lot of material that must be completed every week and the material is separated into several points. The teacher is seen always asking students about the material that has been explained.

Result of data analysis that has been carried out, it was found that the problems of teachers and students carrying out mathematics learning with the use of the Alef Platform and the efforts of teachers in facing the problems of learning mathematics with the use of the Alef Platform. The problems in mathematics learning are explained as follows.

a. Problems teachers carry out mathematics learning using the Alef Platform

The problem of teachers found by researchers in carrying out mathematics learning with the use of the Alef Platform is that the learning implementation process in preliminary activities is still not smooth because students are still guided to log in to the Alef Platform resulting in a lot of time on preliminary activities.

Another problem faced by teachers is in learning preparation activities with the Alef Platform, teachers must open one by one sub-materials. This results in disruption of learning preparation because it takes a lot of time to open one by one the keys on the sub-material and sometimes after opening the lock for each learning in the system can be closed again.

Lack of teacher creativity in using the Alef Platform learning media. This can be seen from the learning process created by the teacher in the classroom. Teachers do not use LCD to display the learning media of the Alef Platform and open Alef with students. Alef Platform has available learning videos containing learning materials, games, and practice questions where teachers usually make questions but on the Alef Platform there are practice questions. There is no creativity in delivering learning materials by balancing watching learning videos with direct delivery by the teacher. The absence of discussion of questions by the teacher results in students being confused about answering questions and not being familiar with HOTS-based questions.

The learning method used by the teacher is the assignment method, the teacher only gives assignments to students to complete the learning on the Alef Platform. When the student has not completed his assignment at school, then the student can continue the task at home. The system on the Alef Platform continues to run so it needs to be balanced with learning from home.

Teachers cannot reduce learning features because the Alef Platform cannot reduce learning features so that if students cannot complete the material, it is very visible to the teacher. The material on the Alef Platform is broken down into several sub-materials, but there are materials that should be able to be combined into one sub-chapter but in fact they are separate, and each material has a practice test of the questions, allowing students to do more and more questions.

Another problem found by researchers is that sometimes interactions in the classroom look one way which should be two-way. Students sometimes just stay silent when confused in answering questions. Students immediately answer the questions according to the student's presumption.

The absence of the feature of asking directly on the Alef Platform. If students work on the Alef Platform at home, students must ask questions with the teacher using WhatsApp media where if you don't pay attention to the handphone directly, students must wait until the teacher pays attention to the handphone, this can make students wait which results in lowering student enthusiasm.

Another problem that researchers found was the lack of achievement of learning objectives because students were still lacking in understanding the material of quadrangles and triangles. This is evidenced by students' incomprehension regarding the prerequisites for quadrangular and triangular material, namely not understanding the concept of multiplication and students having difficulty in answering questions about quadrangular and triangular material.

Another problem is found to be the lack of objective assessment on the Alef Platform because it only looks at the performance of students in completing the material or not. Teachers also have difficulty getting overall grades because students lose accounts and must work on the material from the beginning of the second semester and have to re-research.

b. Problems students carry out mathematics learning with the use of the Alef Platform

Learning with the Alef Platform looks interesting and adds to students' insight into mathematics learning. Not only that, but the Alef Platform can also be a learning resource for students. This technology-based platform makes it easy for students to learn anywhere and anytime. The many learning features such as learning videos,

playing, and practice questions provide convenience for students in learning mathematics. Behind the convenience and advantages of the Alef Platform, there are problems found by researchers.

The problem found by researchers is that many students forget the password to log in on the Alef Platform so that in the field a lot of time is wasted because they must reset the student's password. Students who forget the password are a little late in starting to watch learning videos when other friends have watched learning videos.

The learning videos contained on the Alef Platform look very monotonous so that students only finish watching the video, not absorbing what the material is presented. Not infrequently also teachers help explain the learning material. The many materials feature available where there are learning videos for each material make students feel excessive bored with existing learning videos. Not infrequently, students also open learning videos and then shift the time until the learning video is almost complete. This is related to the interviews conducted by researchers with teachers, namely the non-achievement of GASING learning (Easy and Fun) because the learning videos are monotonous and students liken it to just watching videos, doing tests, and then finishing.

Another problem that students face is the features of the games that do not match the students' abilities. The games feature available on the Alef Platform sometimes provides 10 to 20 questions that students must do for 20 minutes. The games feature available provides an experience for students to be quick to respond to doing questions, but students have not been able to keep up with the ability to respond quickly. This is a complaint from students who feel the number of games that must be done but not according to the time given. Teachers who know this, the teacher allows students to do only one to two questions.

The question factor on the question exercise is so difficult. Students don't know how to solve the problem. The questions given on the Alef Platform, namely HOTS-based math problems, result in students not knowing how to solve the problem while the learning video does not lead to the discussion of the problem. This leads students to the condition of students who are lazy to do questions so that if they do the important thing to complete answering the questions so that this condition decreases student learning motivation.

Another problem found is that students do not see the existing explanation if the student answers incorrectly in the practice feature of the question. The questions available on the Alef Platform are multiple choice. Students choose the correct answer and if they choose the wrong answer, usually the Alef Platform gives students the opportunity to choose the correct answer until the multiple-choice option has two left,

namely the correct answer and one wrong answer. If students answer correctly or incorrectly, there is a discussion feature so that students can know how to do the questions, but usually students skip the discussion of the questions because they think that they have done the questions.

Another problem that students face is the level of incomprehension of students about the learning material. From the results of the research found that the use of the Alef Platform was less effective, it can be seen from the lack of students' level of understanding of the prerequisites for quadrangular and triangular material, namely students have not understood the concept of multiplication where before entering mathematics learning quadrangular and triangular material must know the multiplication of a number.

Students' incomprehension regarding the material of quadrangles and triangles can be seen from the difficulty of students doing the questions and students' mistakes in distinguishing quadrangular elements, namely students are not careful in distinguishing square and rectangular flat building elements. The learning video contains a little information about the rectangular and triangular material and the material in the learning video is usually about the basic concepts of a material. Meanwhile, the questions given in the practice question feature on the Alef Platform are HOTS-based math problems. So that there is a mismatch between the material and the questions given which makes students initially understand the material to be confused about the learning material.

Another problem found is that students if they have difficulties with the material cannot ask the Alef Platform. The system is constantly running, and students must complete learning on the Alef Platform not only at school but also at home. If students do assignments on the Alef Platform at home, students feel confused about the material cannot rely on the teacher because they must wait for the teacher's reply regarding the material. So, it is undeniable that students' incomprehension of the material will always be attached to students and can result in student learning motivation.

c. Teachers' efforts in dealing with mathematics learning problems with the use of the Alef Platform

The teacher's efforts in dealing with problems with the use of the Alef Platform, namely the teacher always socializes opening the features on the Alef Platform, how to download documents, how to open an Alef Platform account if students forget the password of their account the teacher gives directions to write forgot the password not creating a new account. Efforts in learning sometimes teachers upload documents



related to the material to increase student insights related to learning materials and if students ask questions or do not understand the material, usually the teacher immediately explains the material being studied and if students open the Alef Platform at home, students ask questions by utilizing WhatsApp and the teacher explains through the Voice Note feature on the WhatsApp application.

The problems faced by teachers and students are in line with research proposed by Sumule (2021) that learning using learning media results in weak access to supervision of students and lack of student learning motivation. In line with research conducted by Safitri et al. (2021) where the low understanding of mathematical concepts and student learning motivation decreased. As well as research proposed by Alyammahi (2020) where the curriculum and content on the Alef Platform do not serve low-performing students who have difficulty learning mathematics.

## CONCLUSION

Based on the results of research and discussion, conclusions can be drawn as follows.

1. The problems experienced by teachers are that the learning implementation process in the preliminary activities is still not smooth, the teacher's lack of creativity in using the Alef Platform media, the teacher cannot reduce learning features, the absence of a direct questioning feature on the Alef Platform, the teacher's lack of firmness in demanding students to complete all learning on the Alef Platform, the lack of achievement of the learning objectives of the quadrangular and triangular material, and the lack of objective assessment on the Alef Platform.
2. The problems experienced by students are that many students forget the password to log in on the Alef Platform, the learning videos contained on the Alef Platform look very monotonous, game features that do not match the student's abilities, questions presented on the Alef Platform so difficult to lead students to a state of laziness in doing questions so that students' learning motivation decreases, students do not see the existing explanation if students answer incorrectly in the question practice feature, lack of student understanding of the prerequisites of quadrangular and triangular material, students' incomprehension of learning materials, and students if difficulties with the material cannot ask the Alef Platform.
3. The efforts made by the teacher to overcome the problem are that the teacher always gives directions to write forgot the password if the student forgets the password from the student's account, how to download documents, and if the student asks or does not understand the material, usually the teacher immediately explains the material being studied.

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