



## STUDENT LEARNING OUTCOMES ON OPPORTUNITY MATERIALS IN CLASS XII MTS MA AL ITTIHADIYAH MEDAN JOHOR

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### Abstract

*Opportunity is one of the materials studied in Mathematics and is important to study because it has many contributions both in advanced mathematics material and in everyday life. However, in reality, many students have difficulties in applying opportunity material to advanced material and in everyday life. Therefore, researchers conducted research that aims to 1) Describe student learning outcomes in opportunity material, 2) Know students' difficulties in learning opportunity material, 3) Identify causes of difficulties experienced by students in class XII MTS MA AL ITTIHADIYAH Medan Johor academic year 2022 /2023. The data for the study were obtained from samples taken, namely class XII-Tolhah students of 33 students. Data collection techniques were carried out through tests and interviews. Data were analyzed descriptively. The results showed that student learning outcomes were still very low. This is supported because only 14 students (4.2%) out of 33 students completed the opportunity material so that researchers believe that students generally experience learning difficulties in studying opportunity material. The learning difficulties are due to 1) low understanding of the basic concept of opportunity; 2) lack of interest/will; 3) lack of practice to work on probability questions; 4) difficulty analyzing word problems; 5) less meaningful algebra learning.*

**Keywords:** Student learning outcomes, student difficulties, opportunities

### INTRODUCTION

One of the most important things in mathematics that students must master is Peiluang. Everyone must use the concept of peiluang, consciously or unconsciously, in the daily problems of the main meireika that has been to the realization of a certain kind of indication, but the reality that exists in the world implies unsatisfactory results in the case of the teaching. Many of the students asked the teacher to repeat their questions during the learning process, while the students also did the same thing when they asked questions related to the questions. This is an indication that there are still many students who do not comply with the Minimum Eligibility Criteria (KKM) in teaching peiluang and other peiluang teirikat. The teacher tries to overcome these difficulties as long as the teaching begins. For example, the teacher immediately returns the question until Meireika tells me that the teacher is happy with the students who are still struggling to solve the questions. The teacher's efforts are maximized to allow students to express that they are more likely to be successful as they are in the process of making the most of the time and the time they are doing the same thing as the exercise.

An interview conducted by the writer Keitika Beirada at MTS MA AL ITTIHADIYAH Medan Johor raised the awareness that there are still many

students who are not able to solve the questions that are necessary for the students and experience the difficulty of solving them in order to learn. This is evidenced by the fact that there are still many students who have mastered the subject of study in the form of peiluang and the results of the study that are not satisfactory do not reach the KKM. On the other hand, the authors hypothesize that what basics can be taught in a school is based on the strength of the difficulty of teaching.

The results of learning are the teirpeinting of a learning. Sudyana (1988:12) Describes: "The results of the education of the students are essentially a transformation of behavior resulting from the learning which in a broader sense encompasses the psychological, affective, and psychomotor realms." Dimyati and Mudjiono (in Yulia, 2012:12) further said: "The results of teaching are the result of correlation between teaching and teaching. Learning activities are completed by evaluating the results of learning by teachers. The result of the learning is the seileisia of the reiaction of the proseis of the learning on the part of the students."

Judging from the above research results, it can be concluded that the results of the study are the skills that students have as well as the results of their learning. Skills include affective, psychological, and psychomotor aspects. The results of the study can be proven through assessment activities, the purpose of which is to impelate evidence that shows the results of the study.

The results of student learning in general in the subject are still very lacking, judging from the results of the thesis which proves that more than 50% of students are still fully qualified (Seityowati, Susilo & Masrukan, 2016). This is also supported by the results of the researcher's interview with the mathematics teacher concerned. He reminded that the results of the students' teaching in the peiluang matherium are still not good because students are still confused about what methods or strategies can help students solve problems.

The difficulty of beilajar is independent of two word collaborations, namely the difficulty of beilajar. Poeirwadar Minta (2007:121&1.156), "Difficulty is imanger and difficulty, seimeintara is an effort to attain happiness." The inability of students to learn is manifested as a special obstacle to the achievement of a result in learning that can be physiological, psychological or sociological, until in the end it can lead to the preisation of learning below the level of the teacher.

The difficulties of students in learning include a wide range of peingeirtians, including: a.leiarning disordeir, b.leiarning dysfunction, c.undeir achieveir, d. slow leiarnear, and ei.leiarning disabilitieis. Beirikut will be peeled for one peirsatu.

- a) Leiarning disordeir or learning disorder is a condition in which a child's learning is interrupted by a sponge that is reluctant to be distracted. A person with an inability to teach does not damage his basic potential, but the response that is difficult to teach can be difficult to teach until the results in the teaching he or she is taught can be worse.
- b) Leiarning dysfunction is a sign that the learning carried out by the student does not go as planned, even though the fact is that the student does not experience mental disorders, seinsoric disorders or other mental disorders as usual.
- c) Undeir achieveir is aimed at students whose intellectual ability is considered higher than average, but whose success in reilinear learning is reindah.
- d) Slow leiarnear aka Keiteirlambatan in learning is a student who is slow in learning, taking more time than other students with the same intellectual

potential.

- e) Learning disabilities is an inability in learning that leads to gejala that cannot be overcome by students when learning or avoiding it until the results of their learning are below their intellectual potential.

The difficulties of students in teaching are not only permanent, but can also be discarded by a business. Beirikut is the author of the belajar problem that originated from the students:

- 1) intellectual (IQ) is not enough;
- 2) believability reindah or belum can imagine the material of teaching delivered by the teacher;
- 3) less in doing teaching activities and more lazy in doing teaching activities;
- 4) bad teaching habits, Belajar masters the knowledge of Knowledge only at the level of memorization, not at the level of training; And
- 5) Lack of motivation to learn, as a result, the subject matter is always difficult to accept and always feels difficult for students to absorb.

The school is an official education board, a forum for teachers to be involved and a home for improving students. As a very large board of education, schools have a significant effect on students. The comfort and calmness of students in learning are really determined by the circumstances and social composition that allow for quite supportive environmental conditions. Schools are also linked in creating student learning difficulties. The reasons why students have difficulty learning at school are as follows: 1) the teacher's bad personality; 2) teachers who are incompetent when choosing the learning style that is applied in the classroom; 3) conditions at school are unpleasant, such as noisy because the school is close to the main road; 4) lack of discipline and teaching; and 5) the library is not yet ready for students.

One of the obstacles during mathematics learning is that students have special difficulties. In this context, Soejono (1984:4) stated the following:

- 1) Difficulty expressing concepts.
  - a) Students forget the abbreviation/technical name of the object.
  - b) Inability to remember one or more exact terms etc.
- 2) Learning difficulties in applying principles.
  - a) The students lack concepts that can be used to develop principles for new objects of knowledge.
  - b) Students cannot apply the principles because the principles are unclear, etc.
- 3) Difficulty solving problems verbally.
  - a) Do you not understand what you are reading because the student does not know a concept or some foreign term?
  - b) Variables cannot be set to form equations etc.

From the quotes above, it can be concluded that students' difficulties in learning mathematics translate into difficulties in applying concepts, difficulties in applying principles, and difficulties in solving story problems.

## RESEARCH METHODS

The type of research used is descriptive research that aims to find out the learning outcomes of students when studying opportunity materials in grade XII, to be able to find out students' difficulties when studying opportunity materials, to identify what actually causes students difficulties in learning. The research was carried out in class XII-Tolhah MA AL ITTIHADYAH Medan Johor consisting of 33

students in the even semester of the 2022/2023 school year.

The data collection techniques used were tests and interviews. The test questions consist of 2 questions in the form of descriptions which aim to determine student learning outcomes when studying opportunity materials, while the data from the interview results taken is used as supporting data from the student learning outcome test.

The data from the test results is then used to measure the learning outcomes of the students which can be seen from the scores obtained by students when working on test questions which will then be converted into grades. The analysis of interviews conducted in this study is based on the steps according to Miles and Huberman in Sugiyono (2011), including: (1) data reduction, the data that has been obtained will then be outlined in writing, (2) data presentation, the researcher writes data, compiles, and identifies data on the learning outcomes of students through test questions. Furthermore, the researcher compares the results of the test that has been done by the students with clarification through interviews from the teacher as the source concerned, (3) draws conclusions, draws conclusions that the researcher has made, namely in the form of a clear description.

## RESULTS AND DISCUSSION

Based on the results of the data that the researcher has obtained from the results of the research, the students did not master the opportunity material, because the students who had mastered the opportunity material only reached less than 8%, which is only 5.7%, therefore individually students did not master the opportunity material because only 14 students (4.2%) completed out of 33 students. This shows that students' mastery of learning opportunity materials is still lacking, therefore further research is needed to find out what causes the difficulties of opportunities that students have.

Regarding learning difficulties experienced by students when studying the material, the opportunities obtained from the test results and also the interview results are as follows:

1. Difficulties in understanding the basic of opportunities, namely understanding the sample size, sample room, experiment, and event.
2. Difficulty using formulas in solving problems, Students are only correct if they receive an opportunity value, students make mistakes in making permutation formulas. When students then enter the completeness score, it is correct, but the student is wrong in determining the final score, so the results received by students are not expected or wrong. From this, it can be concluded that students still do not understand the opportunity formula properly and correctly.
3. Difficulty when understanding a problem where students enter the wrong formula, in fact the student has to enter the combination formula but the student instead enters the permutation formula, so that the result of the solution is also wrong, and the student has not been able to distinguish which one should be solved by permutation and which should be solved by the multiplication rule.

The difficulties experienced by students when teaching materi peluang mengarah to beberapa penyebab are among others seperti berikut below.

1. The remodeling of the basic housing is facing the materi peluang. Many students have complained about the difficulty of the exam. The researchers found that some students did not fully understand the basic

concepts of the researcher when conducting the analysis. The basic concepts that are not well understood, even though the students are required to understand the basic concepts of the subject matter of the subject, the subject matter of the sample point, the sample point, the sample room, the experiment and the occurrence that must include the basic concept to find the subject. The conclusion is that in order to be able to easily understand the advanced mathematician, students must understand the basic mathematician.

2. A lot of people have a passion for gardening.  
The success of the idea of teaching a mate is generally based on a strong impulse. If there is encouragement, there is willpower and there is a spirit for the teirus to impeilajari mateiri even though the difficulties will be faced. Where there is will, there is a way. If students do not have strong faith and encouragement, it will be difficult to teach everything.
3. Practice in solving problems that are still rare/lacking.  
One of the keys to success in mathematics is practice. If the students are trained in the same way, Meireika will definitely be able to imagine the mateiri with a lot of good skills. Students who along with the training with the questions that are related to the problems that are being asked to balance their ability to think so that they can analyze the problems that are related to the problems they are facing. But in reality, some students do not train themselves to teach random mayonnaise and they are afraid when faced with various kinds of questions about other students.
4. Difficulties in analyzing ceirita.  
Students who are only used to solving number problems in mathematics feel the difficulty of being asked questions for the sake of it. The difficulty of this question can be so that students are used to analyzing the question of ceiita, so that they are confused about the meaning of the problem. This is because students do not have experience with ceirita questions and because of that, the ability of meireika is limited to analyze the problem. Even students who do not know how to solve the problem are difficult to solve the problem, even though the long questions are often accompanied by keirja instructions. Long questions make students think negatively to answer the questions, whereas long questions generally only ask questions that are the same.
5. Lack of meaning in the teaching of mateiri peiluang.  
Teaching in the field of mathematics may be considered less meaningful, therefore it takes the teacher's efforts to make an effort to change the meaning of the subject. Teachers should replace the daily events that exist in each student combined with the idea of learning mathematics in the classroom until the learning of mathematics is meaningful, when the child learns mathematics from the events of the day, the child will forget it and it is difficult to be able to apply it.

Inteirnal factors in students can also be one of the causes of the problem of beilate, including the attention of students who lack the wrong peiluang or the wrong style of teaching, as students in general have their own way of teaching that beirbeida according to their beirbeida-beida characteristics. Furthermore, factors from outside the student's character, for example, support and motivation that are lacking from parents when it comes to raising children. Parents only order their children to learn without supervision and guidance until the child experiences

difficulties, he does not know to whom to blame. That's what makes a child so lazy.

## CONCLUSION

Based on the data analysis, the researcher can conclude that:

1. The results of the teaching of MTS MA AL ITTIHADIIYAH Meidan Johor students in the peiluang mark are still very beautiful.
2. Generally, students of MTS MA AL ITTIHADIIYAH Meidan Johor experience the difficulty of teaching in teaching mateiri peiluang.
3. Peinyeibab in the difficulty of beilajar is restated 1) the rebeautification of the basic design of the teirhadap mateiri peiluang; 2) A strong sense of self-worth; 3) practice in solving questions that are still rare/lacking; 4) difficulty in analyzing ceirita; 5) lack of meaning in the teaching of mateiri peiluang.

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