

THE INFLUENCE OF HIGHER ORDER THINKING SKILLS (HOTS) AND CLASS MANAGEMENT ON STUDENT LEARNING OUTCOMES AT TONDANO 2 STATE HIGH SCHOOL

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ABSTRACT

Learning outcomes are a student's abilities obtained after learning activities, including cognitive, affective and psychomotor abilities. Learning outcomes are influenced by many factors including higher order thinking abilities (HOTS) and classroom management. The aims of this research are: 1) To determine the effect of HOTS on student learning outcomes at SMA 2 Tondano; 2) To determine the effect of classroom management on student learning outcomes at SMA 2 Tondano; 3) To determine the effect of HOTS and classroom management on student learning outcomes at SMA 2 Tondano. This research is quantitative research with a total research sample of 115 people. The data analysis techniques used are regression and correlation. The research results show that; 1) There is an influence of HOTS on student learning outcomes at SMA 2 Tondano of 69%; 2) There is an influence of class management on student learning outcomes at SMA 2 Tondano by 16%; 3) There is an influence of HOTS and class management on student learning outcomes at SMA 2 Tondano by 69%.

Keywords: *High Level Thinking Skills, Classroom Management, Learning Outcomes*

INTRODUCTION

Education is a human effort to become a better person. In order to provide good education, the role and duties of teachers in carrying out learning in the classroom are very important. Learning is an important activity that everyone must do optimally to master or obtain something. Education is defined as a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality,

intelligence, noble morals, and the skills needed by themselves, society, nation and state (Republic of Indonesia Law, 2003).

Education is said to be successful if the learning outcomes obtained by students are said to be good. Learning outcomes are the main goal that must be achieved in learning. Apart from being the main goal, learning outcomes are a measure of student success in learning the material presented by the teacher during a certain period. Student learning outcomes can be seen from the results of daily exams, mid-semester exams and final semester exams. The better the student learning outcomes obtained, the better the quality of the students. So all schools must prioritize the learning process with interesting learning methods or models so that students obtain good learning outcomes so that in the future students can also gain knowledge, abilities and experience from the process of their learning activities. Low student learning outcomes can be influenced by learning that does not involve students in the learning process. This means that learning where students only listen, take notes, and the learning model given by the teacher is only a lecture method, causing students to feel bored.

Students who face a learning process at a certain level or level of education definitely want good learning results. Learning outcomes are influenced by various factors, both internal and external factors. student. Higher order thinking skills (HOTS) are defined as the extensive use of the mind to discover new challenges. These higher order thinking skills require a person to apply new information or previous knowledge and manipulate to reach possible answers in new situations. Higher order thinking is thinking at a higher level than just memorizing facts or telling someone exactly how it was delivered (Heong et al., 2011). A thinking process that requires students to manipulate information and ideas in a certain way that gives them new understanding and implications (Istiqomah, 2018: 171).

Higher Order Thinking Skills (HOTS), is one of the factors that can improve learning outcomes. Higher Order Thinking Skills are not only applied to some courses but apply to all courses. Higher Order Thinking Skills are an indication of

success in creating students who can solve problems in any given event. Higher Order Thinking Skills are one of the skills demands in 21st century learning.

Higher Order Thinking Skills (HOTS) learning is expected to help education in Indonesia become better as seen from student learning outcomes. This statement is strengthened by the results of research conducted by Maylani, Nila et al (2020), where the research results obtained confirm that Higher Order Thinking Skills greatly influence learning achievement and the entrepreneurial spirit. Students are more active in talking, trying and evaluating each learning process.

Another factor that plays a role in improving student learning outcomes is classroom management. Wiyani (2013:59), classroom management is a skill possessed by teachers in creating a classroom atmosphere that is conducive to achieving successful teaching and learning activities. The success of learning can be seen from the teacher's ability to manage the class. Classroom management looks at the classroom climate that is created, adequate facilities to support learning activities, good relationships between teachers and students, and a conducive classroom atmosphere. Kurni and Susanto (2018) in their research revealed that the results of classroom management skills have a positive influence on the quality of the learning process and have a very strong relationship.

The results of the observations carried out obtained data which stated that there were still some teachers who experienced difficulties when learning Higher Order Thinking Skills (HOTS) because students still depended on lecturers to always provide explanations of the material for each lesson and students only relied on the availability of books at school. Apart from that, students feel bored when teachers cannot create creative learning to stimulate student activity. The results of the observations also found that there was poor classroom management because it could be seen from the classrooms that there was still a lot of dust, the availability of tables and chairs was inadequate, there was no LCD available, and the books were arranged in disorderly places in the cupboards.

From the explanation of the phenomenon above, researchers are interested in conducting research with the title *The Influence of Higher Order Thinking Skills (HOTS) and Class Management on Student Learning Outcomes at SMA Negeri 2 Tondano.*

THEORITICAL REVIEW

Learning outcomes

Dimiyati and Mudjiono (2013: 3), stated that learning outcomes are the result of an interaction between acts of learning and acts of teaching. From the teacher's side, the act of teaching ends with a process of evaluating learning outcomes. From the student's perspective, learning outcomes are the end of the term and the peak of the learning process. Mustakim (2020), learning outcomes are everything achieved by students with certain assessments that have been determined by the previous educational institution's curriculum. Learning outcomes are students' abilities obtained after learning activities (Nugraha, 2020). Learning outcomes are certain competencies or abilities achieved by students after following the teaching and learning process and include cognitive, affective and psychomotor skills (Wulandari, 2021).

Learning Outcome Indicators

Learning outcomes cannot be separated from what happens in activities in class, at school and outside school. To describe the learning outcomes achieved by students, an assessment process such as a learning outcomes test is held. Learning outcome tests are carried out to see the extent of student success after carrying out the teaching and learning process. Dewi Lestari (2015), stated that there are 3 (three) components that can be viewed from learning outcomes, namely ability:

1. Cognitive (knowledge) is closely related to changes in behavior including the ability to understand knowledge and involves the ability to organize thinking

potential to be able to process stimuli so that they can solve problems that manifest in learning outcomes

2. Affective (attitude) is closely related to changes in behavior itself which are manifested in feelings
3. Psychomotor (skills) are closely related to changes in behavior in the cognitive domain, only cognitive abilities, only cognitive abilities are higher, because the abilities possessed are not only organizing various stimuli into meaningful patterns in the form of skills in solving problems (Dewi Lestari, 2015).

Definition of Higher Thinking Skills

Mufatihatur (2019), stated that higher order thinking skill is a way of thinking at a higher level than understanding and memorizing as well as retelling something told by other people. HOTS skills (Higher Order Thinking Skills) or commonly called higher order thinking skills are thinking processes that require students to develop ideas in certain ways that give them new understanding and implications. Limpan describes high-level thinking as involving critical and creative thinking guided by ideas of truth, each of which has meaning. Lewis and Smith (1993), higher level thinking will occur if someone has information stored in memory and obtains new information, then connects and organizes and develops that information to achieve a goal or obtain a possible solution to a confusing situation and skills. Higher order thinking (HOTS) includes critical thinking, creative thinking, problem solving, and decision making.

From the opinions above, it can be concluded that higher order thinking skills (HOTS) or high-level thinking abilities are the ability to think more complexly and broadly, so that they are not only able to think at the level of memorizing or understanding but rather analyze a problem, create conclude with an open, critical and creative mind.

Indicator Higher Order Thinking Skill (HOTS)

Krathwohl (2002), suggests that the cognitive process structure of Bloom's revised taxonomy consists of:

1. Remember (C1) In this category, it means retrieving relevant knowledge from long-term memory, such as recognizing and recalling. Remembering is the initial process of explaining factual answers, testing memory, and recognition (Helmawati, 2019).
2. Understand (C2) This category means determining the instructional meaning of messages, including verbal, written and graphic communications, such as interpreting, exemplifying, classifying, summarizing, inferring, comparing (comparing), explaining (explaining).
3. Apply (C3) Carrying out or using procedures in certain situations, such as executing, implementing.
4. Analyze (C4) Analysis is the process of mapping or grouping a part into its constituent parts and detecting how the parts relate to each other for the overall structure and purpose, such as differentiating, organizing and attributing.
5. Evaluate (C5) Evaluation, namely making an assessment based on criteria and standards, such as checking and criticizing.
6. Create (C6) Creating, namely combining elements to form a work, a complete whole or creating an original product such as generating, planning, producing.

Class Management

Walters and Frei (2007), state that classroom management includes organizing students, space, time, and materials so that teachers can then enable students to learn the intended content. Korpershoek (2014), developed a definition of classroom management referring to actions taken to create and maintain a learning environment that is conducive to successful teaching and students' social and emotional well-

being, including organizing the physical environment, establishing rules and procedures, maintaining students' attention to lessons and involvement in activities.

Class Management Indicators

Arikunto (2021), indicators of successful classroom management consist of:

1. Creation of a learning environment that is conducive, orderly, disciplined and passionate
2. There is a good relationship between students and teachers and teachers and students interpersonally.

Aisyah Rahmania (2022), suggests that indicators of classroom management success include:

1. Class management can be said to be successful if every student is able to continue studying and working. Students do not easily give up and are passive when they feel they do not know or do not understand the tasks they have to do. At least, students still show enthusiasm and enthusiasm to continue trying and learning, even though they face obstacles and problems that are difficult for them.
2. Class management can also be said to be successful if each student is able to continue doing work without wasting time. This means that each student will work as quickly as possible so that they can immediately complete the assignments given to them.

RESEARCH METHODS

The approach used in this research is quantitative research. Palangda, Listriyanti et al (2023), stated that quantitative research is research where the research results are in the form of numbers. This type of research is correlational research. Correlational research aims to identify the relationship between two or more variables using statistical calculations (Palangda Listriyanti et al, 2022). The population in this

study was 115 class X1 students at SMA Negeri 2 Tondano, and the entire population was used as the research sample. Test the research instruments used using validity and reliability tests. The prerequisite tests used are the normality test and the linearity test (Rawis Joulanda, 2023). To test hypotheses 1 and 2, simple regression, simple correlation, t test and coefficient of determination were used, while testing hypothesis 3 used multiple regression, multiple correlation, F test and coefficient of determination.

RESEARCH RESULTS AND DISCUSSION

The Effect of HOTS on Student Learning Outcomes

Table 1. Coefficients^a

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	5.355	3.028		1.769	.080
	X1	.899	.057	.829	15.73	.000

a. Dependent Variable: Y

From the table above, it can be obtained:

1. The a value or constant value is 5.355, which means that if there is no variable X1 (HOTS), then the consistency value of student learning outcomes is 5.355. Meanwhile, the b value is 0.899, which means that for every 1% addition of the X1 variable (HOTS), learning outcomes will increase by 0.899. From the value of a and the value of b, the simple regression equation can be written $Y = 5.355 + 0.89X$.
2. Obtained sig value. of 0.000, which means that hypothesis 1 which states that there is an influence of HOTS on student learning outcomes is accepted, because the sig. (0.000) is smaller (<) than the probability value (0.05).

3. The t_{count} value is 15.73, so it can be concluded that there is an influence of HOTS on student learning outcomes, because the t_{count} value (15.73) $>$ t_{table} ($n = 115 = 1.661$).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 ^a	.687	.684	5.73212

a. Predictors: (Constant), X1

From the table above, the R value data is obtained which is a symbol of the correlation coefficient value of 0.829. Through this table, the R Square value or coefficient of determination (KD) is also obtained which shows how good the regression model formed by the interaction of the independent variables and the dependent variable is. The KD (R Square) value is 0.687, which means that student learning outcomes are influenced by HOTS by 69% and the remaining 31% is influenced by variables not studied.

The Effect of Classroom Management on Learning Outcomes

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.779	5.423		5.123	.000
	X2	.698	.153	.395	4.573	.000

a. Dependent Variable: Y

From the table above, it can be obtained:

1. The a value or constant value is 27.779, which means that if there is no variable X2 (Class Management), then the consistency value of student learning outcomes is 27.779. Meanwhile, the b value is 0.698, which means that for every 1% addition of variable X2 (Class Management), learning

outcomes will increase by 0.698. From the value of a and the value of b, the simple regression equation can be written $Y = 27.779 + 0.69X$.

2. Obtained sig value. of 0.000, which means that hypothesis 2 which states that there is an influence of classroom management on student learning outcomes is accepted, because the sig. (0.000) is smaller (<) than the probability value (0.05).
3. The t_{count} value is 4.57, so it can be concluded that there is an influence of classroom management on student learning outcomes, because the t_{count} value (15.73) > t_{table} (n = 115 = 1.661).

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.395 ^a	.156	.149	9.40672

a. Predictors: (Constant), X2

From the table above, the R value data is obtained which is a symbol of the correlation coefficient value of 0.395. Through this table, the R Square value or coefficient of determination (KD) is also obtained which shows how good the regression model formed by the interaction of the independent variables and the dependent variable is. The KD (R Square) value is 0.156, which means that student learning outcomes are influenced by class management by 16 % and the remaining 84% is influenced by variables not studied.

The Effect of HOTS and Class Management on Student Learning Outcomes

Table 5. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.965	3.636		1.916	.058
	X1	.927	.067	.854	13.83	.000
	X2	.588	.009	.650	8.03	.024

a. Dependent Variable: Y

From the table above, it can be concluded that:

1. Constant value (a) is 6.965. A constant value means that if there were no HOTS and class management variables (value 0), then the learning outcome would be 6.965.
2. The regression coefficient value for the HOTS variable is 0.927, which means that for every additional 1 unit of the HOTS variable, learning outcomes will increase by 0.927 assuming the other independent variables have constant values.
3. The regression coefficient value for the Class Management variable is 0.558, which means that for every additional 1 unit of the class management variable, learning outcomes will increase by 0.558 assuming the other independent variables have constant values.
4. From these data we can obtain the regression equation $Y = 6.965 + 0.927X_1 + 0.558X_2$

Table 6. ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8158.067	2	4079.034	123.75	.000 ^b
	Residual	3691.620	112	32.961		
	Total	11849.68	114			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

The anova table above provides information that there is an influence between the hot variables and classroom management on student learning outcomes. The results of data analysis obtained an F_{count} value of 123.75, which indicates that the F_{count} value $>$ F_{table} (3.08). So from these data it can be concluded that hypothesis 3 which states that there is an influence of HOTS (X_1) and classroom management (X_2) has an effect on students' interest in learning (Y).

Table 7 . Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.830 ^a	.688	.683	5.74116

a. Predictors: (Constant), X2, X1

The model summary table provides information that the coefficient of determination (R Square) is 0.688 which comes from the R value squared. This figure means that the influence of the HOTS variable and the Class Management variable) influences the Y variable (Learning Outcomes) by 69% and the remaining 31.2% is influenced by variables outside HOTS and Class Management.

CONCLUSION

From the data analysis that has been carried out, it can be concluded that

1. There is an influence of the HOTS variable on student learning outcomes at SMA Negeri 2 Tondano
2. There is an influence of classroom management variables on student learning outcomes at SMA Negeri 2 Tondano
3. There is an influence of the HOTS variable and class management variables together on student learning outcomes at SMA Negeri 2 Tondano

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