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The Effect Of Probing Prompting Learning Approach And Learning Motivation On Students' Science Learning Outcomes In Grade VII SMPN 31 Seluma

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ABSTRACT

The formulation of the problem in this research is first, there is an influence of the probing prompting learning approach on the science learning outcomes of Class VII Students at SMPN 31 Seluma. Second, there is an influence of learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma. Third, there is an influence of the probing prompting learning approach and learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma. The type of research in this research is quantitative research using quasi-experimental or quasi-experimental methods. This design uses control and experimental groups. The results of the first research, there is a probing prompting learning approach to the science learning outcomes of Class VII students at SMPN 31 Seluma. Second, there is an influence of learning motivation on student learning outcomes in science learning outcomes for Class VII students at SMPN 31 Seluma. Third, there is a simultaneous influence of the probing prompting learning approach and learning motivation on the science learning outcomes of class VII at students at SMPN 31 Seluma.

Keywords: Probing Prompting Learning Approach, Learning Motivation, Learning Outcomes.

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1. INTRODUCTION

Education is a conscious and planned effort to realize learning and the learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and the skills needed for themselves, society and the country. Education is also a need for human life that absolutely must be fulfilled, in order to achieve prosperity and happiness in the afterlife.

Education is something that is very urgent in human life. This can be proven by the many postulates which essentially command humans to study and pursue education. Islam is a religion that carries a mission for its people to provide education and teaching. The first verse of the Qur'an that was revealed concerns issues of faith as well as issues of education. One of Allah's words in QS. Al-Alaq verses 1-5 follow:

خَلَقَ ۚ ٱلَّذِي رَبِّكَ بِٱسْمِ ٱقْرَأْ ١ عَلَقٍ مِّنْ ٱلْإِنسَٰنَ خَلَقَ ٢ ٱلَّذِي بِٱلْقَلَمِ عَلَّمَ ٣ مَا ٱلْإِنسَٰنَ عَلَّمَ ٤ يَعْلَمْ لَمْ

Meaning: Read with (mention) the name of your God who created. He created man from a clot of blood. Read, and your Lord is the Most Gracious. Who teaches (humans) by means of kalam. He taught man what he did not know.

From the verse above it can be understood that God said that humans should believe in the existence of God, the creator of humans (from a clot of blood), then to strengthen their belief and maintain it so that it does not fade, they should carry out education and teaching.

One of the government's efforts to improve the quality of education is to establish a curriculum as a reference for competency standards and basic competencies to be achieved. It is hoped that the material studied at school will be able to achieve the competency standards that have been set, and the goal of education, namely changes in the knowledge, behavior or attitudes and skills desired by students, will occur after they learn.

Thus, teacher mastery of the classroom and learning model is absolutely necessary to create effective and efficient learning conditions with optimal results. As learning environment managers, teachers should be able to use knowledge of teaching and learning theories and developmental

theories so that it is possible to create teaching and learning situations that make student learning activities easy to carry out and at the same time facilitate the achievement of the expected goals. Even though the government has made efforts to improve the quality of education, there are still perceived weaknesses in the education system in Indonesia, namely the implementation of a learning process that does not encourage dynamic student development. This is evident from students' readiness to receive lessons, where there are still many students who are ready to receive and record lesson material at that moment and if asked again the next day, many of them forget.

One factor in students' readiness to receive lessons is the learning method offered by the subject teacher. The teacher is a source of learning as well as a facilitator for students. As a learning resource and facilitator, teachers are obliged to provide a creative learning environment that is able to improve student learning outcomes. One of the tasks that teachers must do is choose the right method to achieve learning objectives. The teaching and learning activities that have occurred so far include the use of inappropriate learning methods and teachers being creative in using learning methods. So far, teachers have tended to use theoretical methods and lectures only, so that students' activities tend to be listening, taking notes and doing assignments. This situation is certainly boring for students, so that students are less prepared to receive the lesson material provided by the teacher.

So that the history learning process can be more meaningful and student-oriented and obtain predetermined results, researchers need to design creative and innovative learning. Teachers must change teaching rules from demands that students can imitate exactly what is conveyed by the teacher. It is a learning rule that emphasizes students' ability to develop knowledge schemes based on real experiences they have had.

Meanwhile, according to Bloom's Taxonomy as quoted by Trianto, the aim of science education is not only to provide knowledge (cognitive) but also to provide skills (psychomotor), scientific attitudes (affective), understanding, habits and appreciation in seeking answers to a problem. This requires that teachers as learning managers can provide a conducive learning environment, appropriate learning approaches and can actively involve students in learning, so that students not only receive knowledge from what they hear but also from what they see and what they learn. he can do and be able to do science in particular will provide opportunities for students to understand science concepts through the environment around them.

Presenting the atmosphere around or outside the classroom in learning has a very broad significance, bringing learning closer to the object, learning material will be easily accepted by students because the learning object is concrete so that students do not just guess at learning objects based on their imagination, students can make connections between concepts are studied in the classroom with real conditions that occur in the environment so that the concepts are strengthened, children become more familiar with the real world, inquiry is more productive so that the essence of learning will be more meaningful and learning activities will be more interesting and not boring.

In this case, the learning approach is expected to increase student motivation to follow the learning process which will ultimately lead to increased student learning outcomes. However, in reality, teachers often ignore the importance of learning approaches and carry out the learning process without carrying out variations in learning, which ultimately results in low student learning motivation.

This is in accordance with the results of interviews and direct pre-research on class VII eye teachers at SMPN 31 Seluma, showing that in the learning process teachers often use conventional approaches, questions and answers, and assignments. This causes teachers to be more active than students because the learning process with this approach is centered on the teacher himself. Many students say science lessons are boring and not fun. Things like this are certainly a challenge for teachers to make science learning interesting and enjoyable. The problems above are caused by the following: the teaching approach used by the teacher is always monotonous, namely only lecturing, the teacher is only oriented towards the existing textbook, the cultivation of science concepts rarely uses teaching aids, students rarely express opinions and ask questions, when students are given assignments , many students did not finish, the learning outcomes achieved by students at the end of learning were still low, on average only reaching 65.

Based on the description above, the researcher assumes that the probing prompting learning approach can be the solution. This is based on the learning process using the Probing Prompting Learning approach. The teacher guides students to explore their ideas by asking questions, so that students can think at a higher level. When answering questions, students are required to be able to understand the concepts, situations and facts they know. Probing, means that the problem is stated in

questions directed by the teacher to students, while prompting means assistance, given to students by guiding students to think. This approach is designed to make students active and provide opportunities for students to review. So by reviewing and answering questions given by the teacher, students indirectly get to know, analyze and understand the learning material presented. Researchers chose to conduct research at SMPN 31 Seluma because they thought that problems required quick and precise solutions so that student motivation and learning outcomes could immediately be improved.

2. METHOD

The type of research in this research is quantitative research using quasi-experimental or quasi-experimental methods. This design uses control and experimental groups.

Population

Population is the subject of research. Population can also be interpreted as all the objects you want to study. In this research, the target population was class VII students at SMPN 31 Seluma .

Sample

The sample can be interpreted as part or representative of the population studied. Sample also means a portion of the population or small group observed. The sample in this study was all students in class VII A and VII B of SMPN 31 Seluma using a total sampling technique so that the sample in this study was 60 students with a sampling technique, namely total sampling. This is based on Arikunto's opinion that if there are less than 100 subjects, it is better to take all of them so that the research is a population study with 64 students as a sample.

Table 1
Research Sample

NO	Class	Amount
1	VII A	30 People
2	VII B	30 People
Amount		60 People

Source: Archives of SMPN 31 Seluma 2023

In this study, the sample was divided into two experimental groups that were treated and a control group that was not treated. It's just that in this design the experimental and control groups were not chosen randomly. [2] As is known, determining the sample in research.

Table 2
Research design

Approach (A) / Motivation (B)	*Probling Prompting Learning* A1	*Non Probling Prompting Learning* A2
B1 (High Motivation)	A1 B1	A2 B1
B2 (Low Motivation)	A1 B2	A2 B2

3. RESULTS AND DISCUSSION

Result

Learning Motivation

Data About Student Learning Motivation (Experimental Class)

This section is presented research data relating to the learning motivation of experimental class students. This data was obtained from the results of questionnaire answers to respondents .

Table 3
Questionnaire Score Frequency

No	Intervals	F	Xi	Xi^2	F . Xi	$F . Xi^2$
1	28-30	1	29	841	29	841
2	31-33	4	32	1024	126	567
3	34-36	3	35	1225	105	3675
4	37-39	5	38	1444	190	7220

5	40-42	10	41	1681	410	16810
6	43-45	7	44	1936	308	13552
					1042	42098

Source: Results of Research Questionnaire Distribution

After the data tabulation of experimental class students' learning motivation scores is known, calculations are carried out using the following procedure:
1) Find the mean with the formula:

$$M = \frac{\sum fXi}{N}$$

$$M = \frac{1035}{30}$$

$$M = 39{,}8$$

2) Find the standard deviation value using the following formula:

$$S = \sqrt{\frac{\sum fXi^2}{N} - \left(\frac{\sum fXi}{N}\right)^2}$$

$$S = \sqrt{\frac{41543}{30} - \left(\frac{1035}{30}\right)^2}$$

$$S = \sqrt{1597{,}807 - (39{,}807)^2}$$

$$S = \sqrt{1597{,}807 - 1584{,}597}$$

$$S = \sqrt{13{,}21}$$

$$S = 3{,}63$$

3) Determination of TSR criteria as follows:

After knowing the mean and standard deviation of experimental class students' learning motivation, the next step is to determine the TSR as follows:

Height : M + 1 . elementary school and above
: 39.8 + 1 . 3, 63
: 43.43 and above
Medium: M – 1. SD to M + 1 . elementary school
: 39.8 – 1 . 3, 63 to 39.8 + 1. 3 .63
: 36.17 to 43.43 (37-43)
Low: M – 1. elementary school and below
: 39.8 – 1. 3, 63
: 36.17 and below

From the description above, it can be seen that the learning motivation of experimental class students is in the medium category. Namely, 19 students (63.33%) were in the medium category.

Student Learning Motivation (Control Class)

In this section it is presented research data relating to the learning motivation of control class students. This data was obtained from the results of questionnaire answers to respondents .

Table 4
Questionnaire Score Frequency

No	Intervals	F	Yi	Yi ²	F . Y i	F . Y i ²
1	28-30	1	29	841	29	841
2	31-33	4	32	1024	126	571
3	34-36	3	35	1225	105	3675

4	37-39	5	38	1444	190	7220
5	40-42	10	41	1681	410	16810
6	43-45	7	44	1936	308	13552
					1042	42098

Source: Results of Research Questionnaire Distribution

After the data tabulation of control class students' learning motivation scores is known, calculations are carried out using the following procedure:
1.) Find the mean with the formula:

$$M = \frac{\sum fYi}{N}$$

$$M = \frac{1042}{30}$$

$$M = 40{,}07$$

2.) Find the standard deviation value using the following formula:

$$S = \sqrt{\frac{\sum fYi^2}{N} - \left(\frac{\sum fYi}{N}\right)^2}$$

$$S = \sqrt{\frac{42098}{30} - \left(\frac{1042}{30}\right)^2}$$

$$S = \sqrt{1619{,}153 - (40{,}07)^2}$$

$$S = \sqrt{1619{,}153 - 1605{,}604}$$

$$S = \sqrt{9{,}548}$$

$$S = 3{,}68$$

3.) Determination of TSR criteria as follows:

After knowing the mean and standard deviation of experimental class students' learning motivation, the next step is to determine the TSR as follows:

Height : M + 1 . elementary school and above
: 40.07 + 1 . 3, 68
: 43.75 and above
Medium: M – 1. SD to M + 1 . elementary school
: 40.07 – 1 . 3.68 to 40 + 1. 3 .68
: 36.39 to 43.74 (37-43)
Low: M – 1. elementary school and below
: 40.07 – 1. 3, 68
: 36.39 and below

From the description above, it can be seen that the learning motivation data for control class students is in the medium category. Namely, 15 students (15%) were in the medium category.

Student Values

Experimental Class

This data was obtained from student test results after learning science using the *probing prompting method.* Based on the science score table for class VIIA SMPN 31 Seluma using the *probing prompting learning method* , it can be explained that from 30 students the average score obtained was 76.5.

Control Class Student Learning Results

This data was obtained from the results of students' science learning tests taught using conventional class VIIB learning methods. Based on the table of class VIIB test scores using

conventional learning methods, it can be explained that the 30 class VIIB students obtained an average score of 70.16.

Data Analysis

Pre-Acquisition Test

1.) Homogeneity Test

Data normality testing is intended to determine that the research comes from data with the same variance. The homogeneity test criteria are met if the test results are significant at a significance level of 0.05. If the significance obtained is greater than 0.05 (sig > 0.05), then the data analyzed is homogeneous. Meanwhile, if the significance obtained is smaller than 0.05 (sig < 0.05) then the research data is not homogeneous.

Table 5
Test of Homogeneity of Variances

Levene Statistics	df1	df2	Sig.
1,555	1	58	,217

Source: Data Processing Results

From the table above it can be seen that the significance value of 0.217 indicates that it is greater than the value of 0.05. As for the significance value obtained being greater than 0.05, it can be concluded that the data tested is homogeneous.

2.) Normality Test

Data normality testing is intended to determine that research comes from normally distributed data. Normal criteria are met if the test results are significant at a significance level of 0.05. If the significance obtained is greater than 0.05 (sig > 0.05), then the data analyzed is normally distributed. Meanwhile, if the significance obtained is smaller than 0.05 (sig < 0.05), then the research data is not normally distributed.

Table 6
Tests of Normality

Kolmogorov-Smirnov [a]			**Shapiro-Wilk**		
Statistics	Df	Sig.	Statistics	df	Sig.
,220	30	,061	,861	30	.071
,222	30	.071	,913	30	,067
a. Lilliefors Significance Correction					

Source: Data Processing Results

From the table above it can be seen that the significance value of each variable is greater than 0.05. As for the significance value obtained greater than 0.05, it can be concluded that the data tested is normally distributed.

Hypothesis Testing

Partial t test

At this stage the researcher carried out a partial t test, the results of this partial t test can be seen in the following table:

Table 7
Partial t test

		Problem Prompting Learning	**Motivation to learn**	**Learning outcomes**
Pearson Correlation	Problem Prompting Learning	1,000	,479	,496
	Motivation to learn	,479	1,000	,395
	Learning outcomes	,496	,395	1,000

Sig. (1-tailed)	Problem Prompting Learning	.	,000	,000
	Motivation to learn	,000	.	,000
	Learning outcomes	,000	,000	.
N	Problem Prompting Learning	30	30	30
	Motivation to learn	30	30	30
	Learning outcomes	30	30	30

Based on the table above, it can be seen that

1) *Problem Prompting Learning* with learning results in the partial t test obtained a correlation value of 0.479 with a significance level of 0.00, based on (p < 0.05), a strong relationship category with a positive direction. Because the calculated t-value of 0.479 is more than the t-table of 0.176 or p value <0.05, this means that there is a significant relationship between *Problem Prompting Learning* and positive learning outcomes.
2) Learning motivation and learning outcomes in the partial t test obtained a correlation value of 0.496 with a significance level of 0.00 , based on (p < 0.05), the category of strong relationship with a positive direction. Because the calculated t-value of 0.496 is smaller than the t-table of 0.176 or p value <0.05, this means that there is a significant relationship between learning motivation and learning outcomes in a positive direction

Simultaneous F test

Multiple linear regression analysis was used in this research with the aim of determining whether there was an influence of the independent variable on the dependent variable. Statistical calculations in the multiple linear regression analysis used in this research were carried out using the *SPSS For Windows computer program.* A summary of the results of data processing using the SPSS program is in the table:

Table 8
Simultaneous F Test

Coefficients [a]											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partials	Part	Tolerance	VIF
1	(Constant)	15,707	2,408		6,523	,000					
	Problem Prompting learning	,499	,089	,479	5,614	,000	,479	,479	,479	1,000	1,000
2	(Constant)	12,193	2,387		5.107	,000					
	Motivation to learn	,349	,090	,335	3,887	,000	,479	,355	,308	,844	1,184
	Learning outcomes	,291	,069	,364	4,219	,000	,496	,381	,334	,844	1,184
a. Dependent Variable: Learning Outcomes											

The data in the table above can be explained by the multiple linear regression equation, namely Y = 12.19 3 + 0.349 X1 + 0.291 X2. The regression equation shows that the constanta value is 12.19 3 and *the problem prompting learning coefficient* is 0.349 and the learning motivation coefficient is 0.291, then the Sig. for *problem prompting learning* (X1) is 0.000 < 0.05, which means that *problem prompting learning* has an influence on learning outcomes. Next for the Sig value. Learning motivation (X2) is 0.000 < 0.05, which means that learning motivation has an influence on learning outcomes, so it can be said that the research hypothesis which states that Ho is rejected and Ha is accepted has been proven, so based on the research data it can be stated that there is an influence of the *probling method. prompting learning* and learning motivation on the science learning outcomes of Class VII students at SMPN 31 Seluma.

Discussion

Based on the research results, it can be described as follows:

1. The influence of *the probing prompting learning* approach on the science learning outcomes of Class VII Students at SMPN 31 Seluma. *probing prompting learning* approach to the science learning outcomes of Class VII Students at SMPN 31 Seluma in the partial t test obtained a correlation value of 0.479 with a significance level of 0.00, based on (p < 0.05), a strong relationship category with a positive direction. Because the calculated t -value of 0.479 is smaller than the t -table of 0.176 or p value <0.05, this means that there is a significant relationship between the *probing prompting learning approach* and positive learning outcomes.
2. The influence of learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma. The influence of learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma in the partial t test obtained a correlation value of 0.496 with a significance level of 0.00, based on (p < 0.05), a strong relationship category with a positive direction. Because the calculated t -value of 0.496 is smaller than the t -table of 0.176 or p value <0.05, this means that there is a significant relationship between learning motivation and learning outcomes which has a positive direction.
3. There is an influence of *the probing prompting learning* approach and learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma The multiple linear regression equation is obtained, namely Y = 12.19 3 + 0.349 X1 + 0.291 X2. The regression equation shows that the constanta value is 12.19 3 and the *problem prompting learning approach coefficient* is 0.349 and the learning outcomes coefficient is 0.291, then the Sig. for *the problem prompting learning approach* (X1) is 0.000 < 0.05, which means the *problem prompting learning approach* has an influence on the concept of learning outcomes . Next for the Sig value. Learning motivation (X2) is 0.000 < 0.05, which means that learning motivation has an influence on learning outcomes, so it can be said that the research hypothesis which states that Ho is rejected and Ha is accepted.

This shows that the learning outcomes with the *problem prompting learning approach* have high learning motivation. This can also be seen during discussions, students are active in discussing, this is because each student has a problem and discusses it in their group.

The learning outcomes achieved by students will definitely vary according to their abilities. In learning, students' learning outcomes have not yet reached completeness. In the learning process, students tend to only receive the material without truly understanding it. When there is material that is deemed not to be understood, students are reluctant to ask questions and there is a lack of communication between educators and students which results in students being embarrassed and reluctant to ask questions about material that is unclear. This results in students becoming passive and not daring to express opinions or ask questions. For this reason, there needs to be something that can solve this problem.

Approach is expected to improve student learning outcomes because this method can encourage students to think actively. In this method, students change, correct, complement, justify or confirm their answers, by linking them to previous knowledge, or transferring them to other classmates to achieve joint active participation. The use of the *probing prompting* approach is expected to have an influence on achieving learning objectives. The influence of the learning approach is expected to improve students' learning outcomes.

Learning motivation also has a big influence on learning outcomes. As there are three functions of motivation, namely:

1. Encouraging students to act, as a driving force or motor that releases energy.
2. Determining the direction of action, namely towards the goal to be achieved
3. Selecting actions, namely determining what actions must be done in harmony to achieve the goal by setting aside actions that are not useful for the goal.

Learning success is also greatly influenced by factors outside the student (external factors). The external factors that influence the learning process can be grouped into three, namely (a) family factors, (b) school factors, (c) community factors.

There are many types of factors that influence learning, but can be classified into only two groups, namely internal factors and external factors. Internal factors are factors that exist within the individual who is learning, while external factors are factors that exist outside the individual.

4. CONCLUSION

Based on the presentation and analysis of research data, it can be concluded as follows:

a. There is a probing prompting learning approach to the science learning outcomes of Class VII Students at SMPN 31 Seluma. The results of multiple linear regression analysis calculations with partial testing show that the probing prompting learning approach variable has a positive and significant influence on student learning outcomes.
b. There is an influence of learning motivation on student learning outcomes in science learning outcomes for Class VII students at SMPN 31 Seluma. The results of the analysis show that learning motivation has a significant effect on student learning outcomes.
c. There is a simultaneous influence of the probing prompting learning approach and learning motivation on the science learning outcomes of class VII students at SMPN 31 Seluma. The multiple linear regression equation is obtained, namely Y = 12.192 + 0.349 X1 + 0.291 X2. The regression equation shows that the constanta value is 12,192 and the probing prompting learning coefficient is 0.349 and the coefficient is 0.6291, then the Sig. for probing prompting learning (X1) is 0.000 < 0.05, which means peers have an influence on learning outcomes. Next for the Sig value. probing prompting learning (X2) is 0.000 < 0.05, which means that probing prompting learning has an influence on learning outcomes, so it can be said that the research hypothesis which states Ho is rejected and Ha is accepted.

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