



# Explaining Skills and Asking Skills Improve Mathematics Learning Outcomes of Elementary School Students

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## ARTICLE INFO

### Article history:

Received October 02, 2022

Accepted November 15, 2022

Available online November 25, 2022

### Kata Kunci:

Menjelaskan, Bertanya, Hasil Belajar

### Keywords:

Explain, Ask, Learning Outcomes



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## ABSTRAK

Beberapa persoalan berkembang di lapangan yaitu belum optimalnya pencapaian tujuan belajar siswa karena perlunya pemahaman instruktur tentang keterampilan menjelaskan dan bertanya. Penelitian ini bertujuan untuk menganalisis hubungan keterampilan menjelaskan dengan hasil belajar matematika, hubungan keterampilan bertanya dengan hasil belajar matematika, dan hubungan keterampilan menjelaskan dan keterampilan bertanya dengan hasil belajar matematika siswa kelas VI MI. Penelitian ini menggunakan metodologi kuantitatif dan menggunakan *ex-post facto*. Populasi penelitian ini berjumlah 24 siswa, dan diambil sampel sebanyak 23 siswa dengan menggunakan teknik sampling jenuh. Alat pengumpulan data yang digunakan adalah survei dan studi dokumentasi. Instrumen pengumpulan data berupa angket dengan skala likert yang sebelumnya dievaluasi kenormalan dan reliabilitasnya. Korelasi momen-produk Pearson, korelasi berganda, dan uji-F digunakan untuk analisis data. Hasil pengujian hipotesis, terdapat hubungan yang signifikan dan positif antara keterampilan menjelaskan dengan hasil belajar matematika. Hubungan positif dan signifikan antara keterampilan bertanya dengan hasil belajar matematika. Hubungan positif antara keterampilan menjelaskan dan keterampilan bertanya dengan hasil belajar matematika. Disimpulkan menunjukkan hubungan yang positif dan signifikan secara statistik antara kemampuan menjelaskan dan keterampilan bertanya dengan hasil belajar matematika siswa kelas VI MI.

## ABSTRACT

Several problems developed in the field, namely, the achievement of student learning objectives, still needed to be optimal due to the need for instructors' understanding of explaining and asking skills. This study aims to analyze the relationship between explaining skills and learning outcomes in mathematics, the relationship between asking skills and learning outcomes in mathematics, and the relationship between explaining skills and questioning skills with learning outcomes in class VI MI students. This study uses a quantitative methodology and uses *ex-post facto*. The population of this study was 24 students, and 23 students were taken as a sample using a saturated sampling technique. Data collection tools used are surveys and documentation studies. The data collection instrument was a questionnaire with a Likert scale which had previously been evaluated for normality and reliability. Pearson product-moment correlation, multiple correlation, and F-test were used for data analysis. The results of testing the hypothesis show a significant and positive relationship between explaining skills and mathematics learning outcomes. There is a positive and significant relationship between questioning skills and mathematics learning outcomes. There is a positive relationship between explaining and asking skills and mathematics learning outcomes. It was concluded that there was a positive and statistically significant relationship between the ability to explain and the skills to ask questions with the mathematics learning outcomes of MI class VI students.

## 1. INTRODUCTION

Education is a crucial cornerstone of a nation's civilization. Education is a conscientious and designed attempt to create a positive learning environment and learning process so that students actively increase their possibilities, the nation's community, and the state (Hayati et al., 2020; Nasional, 2003;

Rifa'i & Sunariya, 2020). The attainment of national education goals must be balanced with improving teacher and student quality. All of this may be accomplished through a process of teaching and learning that is efficient, effective, interesting, and enjoyable (Lee & Martin, 2020; Sukendar et al., 2019; Uerz et al., 2018). In a classroom, the teacher plays a crucial role in instruction success. Not only may it be decided by factors such as skills, motivation, and student engagement, but the fullness of facilities also relies on the teacher's ability to enhance teaching abilities (Novita et al., 2020; Syahrial et al., 2019). An individual must possess these competencies (Andriyani, 2022). Essential teaching skills are the skills or abilities of the teacher to explain concepts related to learning materials. The basic skills of teaching teachers can help students improve excellent and fun learning (Ahn et al., 2021; Jaya, 2017). Thus the basic skills of teaching relate to some basic skills or expertise and must be mastered by teaching staff in carrying out their teaching duties. Teacher skills are a set of teacher expertise in training or guiding activities and learning or controlling class conditions to make the teaching and learning process enjoyable (Özkan Yıldız & Yılmaz, 2021; Pratiwi, 2019; Suhartini et al., 2021). There are eight teaching competencies. A teacher must sequentially possess eight teaching skills, including asking skills, reinforcement skills, variations skills, explaining skills, opening and closing skills, small group discussion skills, class management skills, and individual work skills (Sugihartini et al., 2020; Tack & Vanderlinde, 2014).

The findings of previous research indicate that the nine dimensions of basic teacher teaching skills, including aspects of asking questions, providing reinforcement, making variations, explaining, opening and closing lessons, guiding discussions, managing classes, utilizing learning media, and utilizing technology, fall within the category of "high" (Lunenberg et al., 2014; Susanto, 2022). After that, the researcher picked only two teaching skills since a teacher must comprehend explaining skills and questioning skills to maximize the efficiency of usage and presentation of explanations and determine students' comprehension levels. With the use of explaining and questioning abilities, teachers can discover the challenges encountered by students (Dalimunthe et al., 2019; Tanang & Abu, 2014). MI Muhammadiyah Paseban, Bayat District, Klaten Regency, was monitored and used as a research site by researchers. Observations by researchers in 6th grade in July 2022 revealed several factors that led to the suboptimal achievement of student learning outcomes. Including the teacher's inadequate understanding of explaining skills, the teacher's infrequent use of learning media, the teacher's haste in conveying material, the monotony and boredom of learning, and the student's lack of attention when the teacher explains the material. Teachers' insufficient knowledge in questioning skills is also a problem during the learning process, where educators pay less attention to clarity in expressing questions—resulting in teacher issues that are not responded to by students, few students participating during the question-and-answer process, and low thematic learning outcomes of sixth-grade students at MI Muhammadiyah Paseban, Bayat District, Klaten Regency.

Skills can be considered experts in a particular field. The results of previous research showed that, in general, the explaining skills of teachers in grade three had been well mastered and followed the explaining component. Explanation and teacher questioning skills are fundamental because, during the learning process, the teacher cannot be separated from explaining the lesson so that students understand the material presented. The skill of explaining is an activity that is most often used by a teacher in the classroom (Damanik, Sagala, R. W., & Rezeki, T. I, 2019), and that is why every prospective teacher must be equipped with this skill. Explaining learning is the skill of presenting information orally, which is systematically organized to show a relationship between one part and another (Karkouti et al., 2022; Sundari & Muliyawati, 2017).

From the viewpoints mentioned above, explaining skills involve verbally delivering knowledge in planned and structured educational and learning activities to acquire the necessary understanding. A teacher must comprehend two questioning abilities, including basic asking skills and advanced asking skills (Damanik, Sagala, R. W., & Rezeki, T. I, 2019). The skill of asking is a very simple skill where this skill becomes the foundation in developing further skills (Harjanto et al., 2018; Sundari & Muliyawati, 2017). Effective and enjoyable learning can occur if a teacher can master questioning skills, teachers are required to ask questions at each stage of learning, and the quality of the questions asked determines the quality of student answers (Ashirin et al., 2021). From several opinions, questioning skills are the most specific skills in verbal teacher utterances that ask for student responses when learning can be stimulated and new knowledge can be gained. Student learning outcomes are one of the goals of schools' teaching and learning process, so teachers need to learn several methods and then practice them when teaching in class (Nasution, 2017; Silalahi, 2020). The learning outcome is that if someone has learned, there will be a change in behavior in that person (Nurrita, 2018; Syawaluddin et al., 2020). Learning outcomes are the result of one's learning process.

Mathematics is a tool to improve our way of thinking. Because of that, mathematics is needed for everyday life and in dealing with advances in science and technology (IPTEK). Mathematics needs to be

provided to every student since elementary school, especially since kindergarten (Fung et al., 2020; Najicun & Winarso, 2017). Some viewpoints suggest that student achievement is the outputs of a person's learning that are actively and favorably tied to his knowledge. Mathematical knowledge is acquired by reasoning and is based on human experience in the real world. Mathematics is one of the subjects taught in elementary, middle, and secondary schools. A teacher who wishes to instruct his students in mathematics should be familiar with and proficient in the subject matter (Rahmah, 2018). Learning mathematics is an activity that is generally related to calculations (Warti, 2018). This study aims to analyze the relationship between explaining skills and learning outcomes in mathematics, the relationship between asking skills and learning outcomes in mathematics, and the relationship between explaining skills and questioning skills with learning outcomes in class VI MI Muhammadiyah Paseban students.

## 2. METHOD

Based on the problems studied, this research uses a quantitative approach. The quantitative approach is the process of finding knowledge that uses numbers to analyze what information they want to know (Nugroho dan Haritanto, 2022). The quantitative approach can be interpreted as research that uses many numbers, starting from data collection, analysis, and results. This study utilized ex post facto research methodology. Ex post facto research determines the link between two or more variables without modifying, adding, or manipulating existing data (Suri et al., 2022). Thus, this ex post facto research can provide much information for decision-making, particularly in education. However, this type of research only demonstrates facts to respondents. It does not adhere to the research subject, so study participants do not provide treatment to increase the variables that have been studied (Abror, 2022). Then, there are independent factors and dependent variables in this study, with explaining skills (X1) as the first independent variable, questioning skills (X2) as the second independent variable, and mathematics learning outcomes (Y) as the dependent variable.

The study was conducted in MI Muhammadiyah in the Bayat District of the Klaten Province. The research was conducted between July and October of 2022. The population of this study was comprised of 24 sixth-grade pupils at MI Muhammadiyah Paseban. In addition, this study's sample consisted solely of sixth-grade kids, with 12 girls and 11 boys selected using a process known as saturation sampling. The saturation sampling technique is a sampling technique where all members of the population are sampled, and this is done when the population is small, less than 30 individuals (Sugiyono, 2021). A total of 23 sixth-grade pupils at MI Muhammadiyah Paseban comprised the sample employed by the researchers, depending on the abovementioned provisions.

The technique used by researchers to collect data is using questionnaires or questionnaires and documentation. The questionnaire technique is a technique that is carried out by giving questions or written statements. At the same time, documentation is a technique carried out by collecting and analyzing documents related to research (Wahdan, 2017). The questionnaire method uses the Likert scale technique. The Likert scale measures attitudes, opinions, and perceptions of a person or group of people about social phenomena. Then, it is made in the form of a checklist with alternative answers given a score of 1, 2, 3, and 4. The questionnaire compiled aims to obtain data about the teacher's teaching skills in diagnosing explaining skills (X1) and questioning skills (X2). Documentation study to collect data in the form of documents such as the number of grade 6 students at MI Muhammadiyah Paseban, Bayat District, Klaten Regency, and to obtain data regarding mathematics learning outcomes, namely from the mathematics teacher's grade book.

The purpose of collecting learning outcomes is to use them as variable data on student learning outcomes (Y). Data analysis uses (1) Variable Description, (2) Prerequisite Test Regression analysis for regression requirements analysis with normality and linearity tests. All of these assumption tests meet the requirements for regression calculations. (3) Hypothesis testing, hypothesis testing using the Pearson Product Moment correlation formula, Multiple Correlation, and F-test while determining the size of the contribution of variable X1 (explaining skills) and variable X2 (asking skills) to Y (learning outcomes) with the coefficient of determinant formula. The significance of the relationship can be seen from the results of the F-test calculations with the rule. If  $F_{count} > F_{table}$ , there is a significant relationship, or the research hypothesis is accepted.

## 3. RESULT AND DISCUSSION

### Result

Based on the information acquired from 23 students or variable X1, the mean or score is 30.30, the range of scores is 10, the standard deviation is 2.67, the maximum value is 34, but the most negligible

value is 24. Additional calculations indicate that explaining skills are included. High category, consisting of 4 students (17%). Somewhat high category, consisting of 4 students (17%). Medium category, consisting of 6 students (26%). Relatively low category, consisting of 7 students (30%). Low category, consisting of 1 student (4%), and deficient category, consisting of 1 student (4%). The computation results indicate that the average level of explaining skills is 30.30. Therefore, this figure is included in the medium group, and it can be concluded that the teacher's explaining skills are included in the medium category because they still need to be optimal in the learning process.

The X2 variable, derived from data collected from 23 students, demonstrates that the score/mean is 28.8, the score range is 15, the standard deviation is 3.7, and the maximum score is 34, but the minimum value is 19. The result of the subsequent calculation places question-asking skills in the high category for one student (4%), the relatively high category for seven students (30%), the medium category for ten students (43%), the reasonably low category for two students (9%), the low category for two students (9%), and the deficient category for one student (4%). The calculating findings indicate that the average level of explanation skills is 28.8. Therefore, this number is included in the medium group, and the teacher's questioning abilities are included in the medium category, as the teacher's questioning skills throughout the learning process are not yet optimal.

According to the data collected from 23 students or Variable Y, the score/mean is 63.2, the score range is 57, the standard deviation is 14.8, the highest value is 87, and the minimum value is 30. Further calculations indicate that the mathematics learning outcomes of grade 6 students at MI Muhammadiyah Paseban fall into the high category for six students (26%), the relatively high category for ten students (43%), the medium category for two students (9%), the reasonably low category for two students (9%), the low category for one student (4%) and the deficient category for two students (9%). Then, based on the findings of the computation, it can be shown that the average learning outcomes of class VI students at MI Muhammadiyah Paseban, Bayat District, Klaten Regency, are 63.2%. Therefore, this number falls within the moderate range. Therefore, it can be stated that the mathematics learning results of class VI students at MI Muhammadiyah Paseban, Bayat District, Klaten Regency, fall within the moderate range. Analysis of the research data was calculated with the help of the SPSS program. SPSS (Statistical Package for Social Science) is also commonly used in processing quantitative data. Then, the researcher uses SPSS 22 to test the relationship of each independent variable to the dependent variable, namely three data need to be tested for normality and linearity, namely variable data X1 (explaining skills), X2 (asking skills), and Y (mathematics learning outcomes). Normality Test of Kolmogorov Smirnov showed in Table 1.

**Table 1. Normality Test of Kolmogorov Smirnov**

		X1	X2	Y
Normal Parameters <sup>a,b</sup>	Mean	30.30	29.04	69.30
	Std. Deviation	2.670	3.350	16.762
Most Extreme Differences	Absolute	0.111	0.234	0.242
	Positive	0.111	0.149	0.146
	Negative	-0.107	-0.234	-0.242
Kolmogorov-Smirnov		0.111	0.234	0.242
Asymp. Sig. (2-tailed)		0.200	0.002	0.001

Based on the results of the table above shows that the results of the Kolmogorov Smirnov normality test above, X1 = 0.111, meaning that the X1 variable data is usually distributed. Then, in the results of the calculation of the normality test for variable X2 = 0.234, it means that variable X2 is usually distributed, and the normality test on variable Y = 0.242 means that the data on variable Y is normally distributed. So, based on the normality test, which states that the data variables X1, X2, and Y are normally distributed, a linearity test is then carried out. Linearity Test of X1 and Y showed in Table 2.

**Table 2. Linearity Test of X1 and Y**

Model			Sum of Squares	df	Mean Square	F	Sig.
Mathematics learning Outcomes * Explaining skills	Between Groups	(Combined) Linearity	4345.170	8	543.146	4.142	0.010
		Deviation from Linearity	2240.679	1	2240.679	17.089	0.001
			2104.491	7	300.642	2.293	0.088
Within Groups			1835.700	14	131.121		
Total			6180.870	22			



Furthermore, from the results of the table above, namely the linearity test X1 with Y, it is known that Sig. deviation from linearity of  $0.158 > 0.05$ . So it can be concluded that between the independent variable (X1) and the dependent variable (Y) there is a linear relationship. Linearity Test of X2 and Y showed in Table 3.

**Table 3. Linearity Test of X2 and Y**

Model		Sum of Squares	df	Mean Square	F	Sig.
Mathematics learning Outcomes * Questioning skills	Between (Combined) Groups	2674.336	10	267.434	0.915	0.549
	Linearity	720.075	1	720.075	2.464	0.142
	Deviation from Linearity	1954.261	9	217.140	0.743	0.667
Within Groups		3506.533	12	292.211		
Total		6180.870	22			

From the results of the table above, it shows that in the calculation of the linearity test X2 with Y, it was found that the results of the linearity test were known to be Sig. Deviation from linearity of  $0.315 > 0.05$ . Thus, it can be concluded that there is a linear relationship between the independent variable (X2) and the dependent variable (Y). After doing the data analysis prerequisite test, consisting of a normality test and a linearity test, hypothesis testing is carried out. The hypothesis test was carried out to determine the relationship and significance between explaining skills and asking skills with the mathematics learning outcomes of grade 6 students at MI Muhammadiyah Paseban. Correlation Test of *Pearson Product Moment* showed in Table 4.

**Table 4. Correlation Test of Pearson Product Moment**

Model	Explaining Skills	Questioning Skills	Mathematics Learning Outcomes
Explaining Skills	Pearson Correlation	1	0.602
	Sig. (2-tailed)	0.016	0.002
	N	23	23
Questioning Skills	Pearson Correlation	0.496	1
	Sig. (2-tailed)	0.016	0.111
	N	23	23
Mathematics Learning Outcomes	Pearson Correlation	0.602	0.341
	Sig. (2-tailed)	0.002	0.111
	N	23	23

From the results of the table above, it shows that the relationship between explaining skills (X1) and learning outcomes in mathematics (Y)  $r$  count =  $0.602 > r$  table =  $0.413$  with the criterion level of a positive "strong" relationship, meaning that there is a unidirectional relationship between explaining skills (X1) and learning outcomes math (Y). So, if the skill of explaining is "strong," then the mathematics learning outcomes of grade 6 students at MI Muhammadiyah Paseban increase. Supported by the results of previous research show that there is a positive and significant relationship between explaining skills and learning outcomes, then questioning skills and learning outcomes (Mursyid, 2019). Furthermore, the relationship between questioning skills (X2) and mathematics learning outcomes (Y) is  $r$  count =  $0.341 < r$  table =  $0.413$  with the criterion of a positive "low" relationship level. Then, there is a positive relationship between questioning skills (X2) and mathematics learning outcomes (Y). So, if the questioning skills are low, the results of learning mathematics are also low. Then, the relationship between explaining skills (X1) and asking skills (X2) is  $r$  count =  $0.496 > r$  table  $0.413$  with the criteria for a "moderate" relationship level. There is a positive relationship between explaining skills (X1) and asking skills (X2). If the explaining skill is moderate, then the questioning skill is also moderate or must be balanced between the two. Supported by previous research, the research results show that students' questioning skills can still be said to be low (Kalsum, 2021). Multiple Correlation Test showed in Table 5.

**Table 5. Multiple Correlation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.604	.365	0.335	13.512	0.365	12.354	2	43	0.000

From the results of the table above, the relationship between explaining skills (X1) and questioning skills (X2) with mathematics learning outcomes (Y) is  $r = 0.604$  with the criterion of a positive "strong" relationship. A positive relationship can occur in a direct relationship between explaining skills (X1) and questioning skills (X2) with mathematics learning outcomes (Y). If the level of explaining skills and asking skills is included in the "strong" criteria, then the results of learning mathematics also increase. Then,  $F_{\text{ount}} = 12.354$  with a significant level of 0.05, so  $F_{\text{table}} = 3.21$ . So,  $F_{\text{ount}} 12.354 > F_{\text{able}} 3.21$ , then  $H_0$  is rejected, and The multiple correlation coefficient is substantial, indicating that there is a link among explaining skills and questioning skills and the mathematical learning outcomes of MI Muhammadiyah Paseban grade 6 pupils. So, past study shows that  $H_a$  is accepted and  $H_0$  is rejected, indicating that there is a substantial association between teacher teaching skills and students' mathematical outcomes at SDN Gugus 1 Kediri in the 2018/2019 academic year.

**Discussion**

The calculation results show that the correlation with the "strong" criterion is optimistic. Furthermore, this shows a positive and significant relationship between explaining skills and mathematics learning outcomes for 6th-grade MI Muhammadiyah Paseban students. Previous research shows that the teacher's explanation skills are well-mastered (Miller et al., 2017; Sundari & Muliyawati, 2017). While other teaching abilities, such as questioning skills, skills for opening and ending lessons, skills for directing small group discussions, skills for teaching small groups and individuals, skills for managing classes, and skills for delivering reinforcement, have produced positive outcomes. The instructor has achieved excellent outcomes regarding the student's ability to execute variations. Skills in elucidating teaching and learning activities, precisely skills in verbally methodically presenting material to determine their relationship. The transmission of information that is well-structured, well-planned, and presented appropriately is, after that, a crucial aspect of elucidating skills (Jin et al., 2022; Karakose et al., 2021). The explanation is one of the most common classroom tasks employed by teachers. Therefore, pupils must increase their explaining abilities to attain the best results (Damanik, Sagala, R. W., & Rezeki, T. I, 2019). Explanation skills are closely related to the teacher's ability to present learning material because it can make it easier for students to understand learning material. Then, the teacher's skills in explaining problems or theories to students must be fulfilled so that students can easily accept and absorb the material presented by the teacher (Sugihartini et al., 2020; Uerz et al., 2018). The teacher's explanation is to provide experience to students and improve students' thinking skills, express ideas, feelings, approval, the desire to convey information about an event, and the ability to broaden horizons.

Based on the results of the researchers' calculations, the correlation coefficient between the variables X2 (asking skills) and Y (mathematics learning outcomes) is positive and is included in the low criteria. So, there is a positive and significant relationship between questioning skills and the mathematics learning outcomes of grade 6 MI Muhammadiyah Paseban students. Student learning cannot be isolated from a teacher participating in the learning process (Karakose et al., 2021; Uerz et al., 2018). Thus, instructors must have the abilities necessary to become competent educators, and questioning skills are one of these qualities. The talent of asking questions is essential in teaching and learning activities so that students are enthused about the material. Good instruction teaches how to ask questions verbally effectively (Nikolopoulou et al., 2021; Rusydiyah et al., 2021). Thus, the ability to ask questions is an imperative necessity for all teachers, whether novices or experts, because by asking questions, both the teacher and the students will receive feedback from the content, and the teacher will also be able to capture the students' attention. Questioning skills are the teacher's capacity to ask questions during the learning process to enhance students' critical thinking and problem-solving abilities (Desnita & Susanti, 2017; Sugihartini et al., 2020). Then, teachers with solid asking skills can assess their pupils' comprehension and support their abilities. Therefore, pupils must develop their asking abilities to attain optimal results. The instructor's asking skills might encourage pupils to engage in critical thought when responding to questions posed by the teacher (Gultom et al., 2020; Hassan et al., 2016).

Based on the results of calculations carried out by researchers, it is known that the correlation between variables X1 (explaining skills) and X2 (asking skills) is positive with moderate criteria. Thus, there is a positive and significant relationship between explaining skills and questioning skills. Skills in

providing explanations, specifically in verbally delivering material and managing it sequentially to demonstrate a connection between concepts (Mursyid et al., 2019; Sophuan, 2018). The primary aspect of explaining skills is the transmission of planned, well-organized, accurately presented, and sequential information. A teacher cannot be divorced from asking questions in the learning process; therefore, a teacher must have questioning skills. Asking questions cannot be divorced from the learning process (Kalsum, 2021)(Khuddus, 2017; Saputra et al., 2015). Learning is asking because learning is a process in which someone previously did not know becomes aware. With the activity of asking questions, the teacher can help students to learn and help students be more perfect in getting information.

Based on the results of the calculations, there is a positive and significant relationship between explaining skills and asking skills with the mathematics learning outcomes of 6th grade students at MI Muhammadiyah Paseban. Essential teaching skills are entirely professional association skills, as a combination of different teacher competencies as a whole, and an essential aspect of the learning process, as this is one of the ways a teacher can increase student enthusiasm for learning through the teaching and learning process in the classroom (Bastian, 2019; Logayah, 2011). Then, the teacher's skills in teaching are an absolute requirement so that the learning process runs effectively. The learning process and student learning outcomes depend on teaching skills, and the teacher must master the subject (Alwiyah & Imaniyati, 2018; Hasma, 2017). Teaching expertise is one of the characteristics that can influence students' learning results. Learning outcomes are the talents students develop from their knowledge-based learning experiences and include the formation of habits, skills, mastery, comprehension, and appreciation in learners (Long & Aleven, 2017; Zheng & Zhang, 2020). Thus, pupils are considered to have achieved learning success if they demonstrate a change in behavior due to their instruction and experience. Consequently, the teacher's presence is crucial to the effectiveness of the learning process. Thus, among all elementary school learning system components, the teacher is one of the essential factors determining the quality of learning. For the learning process to function best, the instructor must have teaching skills, including explaining and questioning abilities. A positive and statistically significant association exists between explaining abilities and questioning skills and grade 6 mathematics learning outcomes at MI Muhammadiyah Paseban.

#### 4. CONCLUSION

The results of the research and discussion regarding the relationship between explaining skills and questioning skills with the mathematics learning outcomes of grade 6 students at MI Muhammadiyah Paseban led to the following conclusions. There is a positive and significant relationship between explaining skills and the mathematics results of grade 6 students at MI Muhammadiyah Paseban. There is a positive and statistically significant association between explaining skills and asking questions and the mathematical learning results of grade 6 students. A positive and statistically significant link between explaining skills and questioning skills and learning outcomes among sixth-grade mathematics students at MI Muhammadiyah Paseban.

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