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Teacher Professionalism on Student Learning Achievement at Public Primary School 001 Japura

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ABSTRACT
The purpose of this study was to analyze 1) the effect of principal leadership on student learning achievement, 2) the effect of teacher professionalism on student learning achievement, and 3) the effect of principal leadership and teacher professionalism on student learning achievement of SD Negeri 001 Japura. This study used a quantitative approach of correlational type with the independent variables being principal leadership and teacher professionalism, while the dependent variable was student learning achievement. This research was conducted on teachers and high-grade students of SD Negeri 001 Japura with a population of 20 teachers and 100 students. The samples used were all teachers and 20 students. The results of the simple regression equation research are 1) principal leadership has an insignificant effect on student learning achievement by 0.04%, 2) teacher professionalism has a significant effect on student learning achievement by 2.2%. The results of multiple regression equations, namely principal leadership and teacher professionalism, have an insignificant effect on student learning achievement by 2.7%, meaning that 97.3% is influenced by other factors. Thus, the overall effect of principal leadership and teacher expertise on student learning outcomes in Mathematics.

Keywords: Principal leadership, teacher professionalism, learning achievement

INTRODUCTION

Education is 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 character, and skills needed by themselves, society, nation and State. In an effort to pay attention to education in Indonesia, in its policy pillars, the government also pays attention to the quality aspects that exist in education itself (Law No. 20 of 2003). One of the main requirements that must be considered in education is said to be quality, namely students showing the level of learning achievement ability[1][2][3]. Learning achievement according to Tu'u (2008: 75) states that learning achievement is the mastery of knowledge or skills developed by subjects, usually indicated by test scores or grades given by teachers. One of the factors that influence learning achievement is the teacher, according to Hata (2017) professional teachers are teachers who are fit to implement multidimensional relationships. Teacher professionalism is closely related to principal leadership. According to Wahjosumidjo (2010) argues that the principal is a teacher who is given the task of leading a school where the learning guidance process is held, or where interaction occurs between teachers who give lessons and students as recipients of lessons. Agreeing with that, a school leader must be able to control, encourage, and inspire staff and students[4][5][6].

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Students' academic learning achievements, especially in mathematics, are still low, because they still have an average score below 60. Meanwhile, students' non-academic learning achievements have improved, where students won 1st place for the art performance competition, 1st place for the female group pioneering competition and 3rd place for the male group pioneering competition[7][8]. The low average score of mathematics students seen from the acquisition of UTS (*Ujian Tengah* Semester/middle Semester Exam) and UAS (*Ujian Akhir* Semester/Semester Exam) results for the last 4 semesters is presented in the table below. The low student scores in mathematics are caused by the difficulty of students understanding abstract mathematical elements and objects, the difficulty of students understanding this mathematics is due to the lack of student understanding of mathematical concepts, while the learning concepts applied so far do not use props, the process of getting concepts or principles is not given. Low student achievement can be influenced by the role of teachers in learning[9][10], where teachers in teaching do not bring lesson plans to class, do not use teaching aids, and teachers use monotonous methods[11][12][13]. Therefore, one of the principal's duties is to create professional teachers. Principals as leaders must know the professionalism of their teachers. The low student scores in mathematics are caused by the difficulty of students understanding abstract mathematical elements and objects[14], the difficulty of students understanding this mathematics is due to the lack of student understanding of mathematical concepts, while the learning concepts applied so far do not use teaching aids, the process of getting concepts or principles is not given[15][16][17]. Low student achievement can be influenced by the role of teachers in learning, where teachers in teaching do not bring lesson plans to class, do not use teaching aids, and teachers use monotonous methods. Therefore, one of the principal's duties is to create professional teachers. Principals as leaders must know the professionalism of their teachers[18].

Table 1. Interpretation of Measures of Stability of Alpha Values

No	School Name	Average of Mathematic GPA							
		First Semester		Second Semester		First Semester		Second Semester	
		UTS	UAS	UTS	UAS	UTS	UAS	UTS	UAS
1	001 elementary School Japura	55	56	54	53	57	57	57	56

Source: Documentation of 001 Elementary School Academic GPA

Previous research, Puspitasari, Tobari, and Kesumawati (2021) with the research title "The Effect of Principal Management and Teacher Professionalism on Teacher Performance". The results of the study were that principal management had an effect on teacher performance, teacher professionalism had no effect on teacher performance, principal management and teacher professionalism together had no effect on teacher performance. Then Marliya, Gimin, and Junius (2020) with the research title "The Effect of Principal

Leadership and Teacher Professionalism on the Performance of Teachers in State Elementary Schools in Siak District, Siak Regency". The results of the study were that the principal's leadership had a significant direct effect on teacher professionalism, the principal's leadership had a significant effect on teacher performance. While Qur'ani, Ahyani, and Eddy (2021) whose research is entitled "The Influence of Principal Leadership and Teacher Professionalism on Teacher Performance", with the results of the study there is a significant influence of principal leadership and teacher professionalism on teacher performance. Farida, Kristiawan, and Fitria (2020) whose research is entitled "The Influence of Teacher Professionalism and School Principal Leadership on Teachers' Performance", with the results of the study there is a positive and significant effect of teacher professionalism and principal leadership on teacher performance. Then Sukmawati, Lian, and Wardiah (2020) with their research entitled "The Influence of Principal's Leadership and Teacher's Performance on Student' Achievement". The results of his research are that there is a significant influence of principal leadership and teacher performance on student achievement.

However, there is no previous research that explains the efforts made by teachers in improving students' low math learning achievement, namely using various methods, providing additional examples of problems, and helping individual student difficulties. While the principal's efforts in improving low learning achievement are by supervising each teacher, but student learning achievement is still low. The objective of this study is to explain how much influence the principal's leadership has on the learning achievement elementary students, besides explaining how much influence the professionalism of teachers has on the learning achievement of elementary students and analyzing the effect of principal leadership and teacher professionalism on the learning achievement of elementary students.

MATERIALS AND MOTHODS

Methods

The aim of this study is to analyze the impact of teacher professionalism on student learning achievement at Public Primary School 001 Japura. Teacher professionalism plays a critical role in shaping the future of students as it directly influences their academic performance. To evaluate these effects, this research uses a quantitative method to analyze data gathered from students, teachers, and parents. This paper will explore the process involved, including analyzing needs, designing products, developing products, implementing products, and evaluating products. Before designing the research, it is necessary to analyze the needs of the study. The primary need of the study is to evaluate the impact of teacher professionalism on student learning outcomes. The study will require a sample of students, teachers, and parents from Public Primary School 001 Japura. The sample size should be large enough to provide reliable and valid results. Based on the needs analysis, the next step is designing the research products. The research products will include a survey questionnaire for teachers, students, and parents. The survey will consist of questions related to teacher professionalism and its impact on student learning. The survey questionnaire will utilize a Likert scale ranging from strongly disagree to strongly

agree. After designing the research instruments, it is time to develop the products. The development of products involves preparing the survey questionnaire for distribution to a sample of teachers, students, and parents. Before distributing the questionnaires, pre-testing will be conducted to ensure that the survey is reliable and valid. The pre-testing will be conducted by distributing the survey questionnaire to a small sample of participants and analyzing their responses. Once the survey questionnaire is developed and pre-tested, it is time to implement the study. Data will be collected from teachers, students, and parents at Public Primary School 001 Japura. The questionnaires will be distributed to teachers, students, and parents by administering them in person. Once the data is collected, it will be analyzed using descriptive statistics and inferential statistics. The final step in the research process is evaluating the products. The evaluation process will involve analyzing the data collected from teachers, students, and parents. The data will be analyzed using statistical techniques to determine the impact of teacher professionalism on student learning outcomes at Public Primary School 001 Japura. The research findings will be reported in a written report and presented to relevant stakeholders.

Instrument

The data collection for this study will involve distributing the survey questionnaire to teachers, students, and parents at Public Primary School 001 Japura. The distribution of questionnaires will be done in-person after acquiring necessary permissions from the school administration. The questionnaires will be distributed to teachers, students, and parents in separate groups, and the participants will be informed about the purpose of the survey, the voluntary participation, and the confidentiality of responses. The participants will be encouraged to fill out the questionnaire truthfully and to the best of their ability. Finally, the participants will submit the completed questionnaires in sealed envelopes to maintain confidentiality. The validation of items involves assessing the reliability and validity of the survey questionnaire to ensure the accuracy of the data collected. In this study, the content validity of the questionnaire was ensured by conducting a thorough literature review and consulting with experts to assess the relevance and appropriateness of the questionnaire items. The reliability of the questionnaire will be established through a standardized test-retest design. A small sample of participants will complete the survey questionnaire on two occasions with a gap of one week to determine the test-retest reliability of the questionnaire. Moreover, the internal consistency of the items will be assessed using Cronbach's alpha coefficient. To assess the internal consistency coefficient, the completed questionnaire responses will be collected from the participants and analyzed using statistical software.

Procedures

Procedure for discovering and analyzing evidence related to Teacher Professionalism on Student Learning Achievement at Public Primary School 001 Japura: The first step of the procedure is to collect relevant evidence that supports the hypothesis of the impact of teacher professionalism on student learning achievement. The evidence can be collected

through various methods such as observation, surveys, focus groups, and interviews. The data collected through these methods will be analyzed to understand the relationship between teacher professionalism and student learning achievement. After collecting the relevant evidence, a comparison will be made between the data obtained and the initial conception of the problem. The results will be analyzed to identify any discrepancies between the actual situation and the initial conception. Moreover, a comparison will be made between different groups of participants to assess the varying levels of impact of teacher professionalism on student learning achievement. Based on the data collected and analyzed, a scientific conception of the impact of teacher professionalism on student learning achievement will be developed. The conception will be evaluated against existing theories and literature to ensure its validity and reliability. The results will be discussed in the context of the existing literature and theories to provide a deeper understanding of the phenomenon. Using discrepant events, the conceived relationship between teacher professionalism and student learning achievement will be tested further to confirm the validity of the conception. The results of discrepant events will be analyzed, and any discrepancies will be accounted for in the conception to build stronger and more accurate conceptions.

RESULTS AND DISCUSSION

Developing and Validating

The validity of the statement about instruments can be determined by comparing the calculation results with the tabulation value. If the calculated value exceeds the critical value at a significant level of alpha 0.05, then the statement item is declared valid. Conversely, if the calculated value is smaller than the critical value, then the statement item is declared invalid. This approach uses known statistical techniques to assess the validity of statement items. The table value at a significant level of alpha of 0.05, with a sample size of n = 20, is recorded = 0.576.

Table 2. Results of Overall Data on Expert Validation

Principal's Leadership Validity Analysis							
No Item	**Score Count**	**Score Table**	**Note**	**No Item**	**Score Count**	**Score Item**	**Note**
1	0,590	0,576	Valid	16	0,545	0,576	Unvalid
2	0,894	0,576	Valid	17	0,900	0,576	Valid
3	0,894	0,576	Valid	18	0,900	0,576	Valid
4	0,887	0,576	Valid	19	0,897	0,576	Valid
5	0,392	0,576	Unvalid	20	0,775	0,576	Valid
6	0,792	0,576	Valid	21	0,873	0,576	Valid
7	0,820	0,576	Valid	22	0,849	0,576	Valid
8	0,869	0,576	Valid	23	0,849	0,576	Valid
9	0,460	0,576	Unvalid	24	0,849	0,576	Valid
10	0,103	0,576	Unvalid	25	0,836	0,576	Valid
11	0,375	0,576	Unvalid	26	0,410	0,576	Unvalid
12	0,375	0,576	Unvalid	27	0,424	0,576	Unvalid
13	0,887	0,576	Valid	28	0,237	0,576	Unvalid
14	0,869	0,576	Valid	29	0,539	0,576	Unvalid
15	0,545	0,576	Unvalid				

Validity Analysis of Teacher Expertise

No Item	Score Count	Score Table	Note	No Item	Score Count	Score Table	Note
1	0,745	0,576	Valid	12	0,571	0,576	Unvalid
2	0,728	0,576	Valid	13	0,596	0,576	Valid
3	0,706	0,576	Valid	14	0,679	0,576	Valid
4	0,931	0,576	Valid	15	0,823	0,576	Valid
5	0,854	0,576	Valid	16	0,761	0,576	Valid
6	0,835	0,576	Valid	17	0,693	0,576	Valid
7	0,850	0,576	Valid	18	0,705	0,576	Valid
8	1, 487	0,576	Valid	19	0,658	0,576	Valid
9	0,649	0,576	Valid	20	0,789	0,576	Valid
10	0,649	0,576	Valid	21	0,324	0,576	Unvalid
11	0,649	0,576	Valid	22	0,789	0,576	Valid

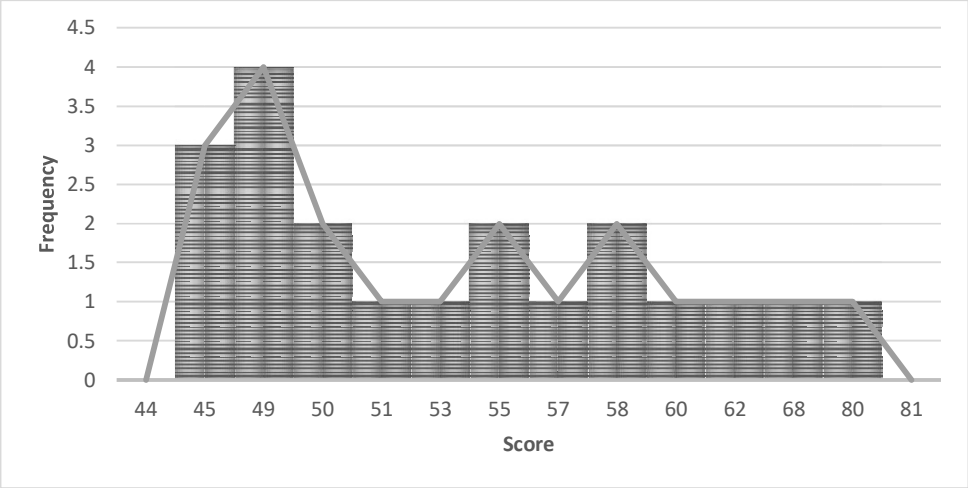
Source: Data Collection 2023

The data obtained from the field is then processed statistically so that the student learning achievement variable is obtained with a mean of 54.4, median 52, mode 49, standard deviation 1396.8 and variance 73, 5158, maximum value 80 and minimum value 45. Based on the results of the frequency distribution of student learning achievement variable scores (Y) and the histogram in the figure above, it can be seen that there are 15% or 3 students who scored 45, there are 20% or 4 students who scored 49, there are 10% or 2 students who scored 51, 53 and 57. While those who scored 60, 62, 68 and 80 were 5% or 1 student. So, it can be concluded that there are as many as 80% or 16 students who get scores below 60, and there are as many as 20% or 4 students who get scores above equal to 60.

Table 3. Result Data of Student Learning Outcomes

No	Score	Frequency	Percentage (%)
1	45	3	15
2	49	4	20
3	50	2	10
4	51	1	5
5	53	1	5
6	55	2	10
7	57	1	5
8	58	2	10
9	60	1	5
10	62	1	5
11	68	1	5
12	80	1	5
Total		20	100

Figure 1. Graphic of Result Data of Student Le arning Outcomes



Source: Student's GPA Report for Mid Exam 2023

The data obtained from the field are then processed statistically so that the principal's leadership is obtained with a mean of 69.1, median 68.5, mode 68, standard deviation 49.8 and variance 2, 6211, maximum value 72 and minimum value 67. Meanwhile, statistics on the results of teacher professionalism obtained a mean of 68, median 69, mode 69, standard deviation 920 and variance 48.4211, maximum value 79 and minimum value 55.

Table 4. Result of Distribution Score of Leadership and Teachers Expertise

Leadership			
No	**Score**	**Frequency**	**Percentage (%)**
1	67	3	15
2	68	7	35
3	69	1	5
4	70	5	25
5	71	2	10
6	72	2	10
Total		20	100
Teacher Expertise			
No	**Score**	**Frequency**	**Percentage (%)**
1	55	3	15
2	65	3	15
3	66	1	5
4	67	1	5
5	69	4	20
6	70	1	5
7	71	2	10

8	72	2	10
9	77	1	5
10	79	2	10
Total		20	100

Source: Student's GPA Report for Mid Exam 2023

Table 5. Result of Regression Score of Leadership and Teachers Expertise toward Students Outcomes

	Sig.		
	Linearity	**Combined**	**Deviation**
Students Outcomes Leadership	0.780	0.215	0.155
Students Outcomes Teacher Expertise	0.434	0.139	0.119

Source: Data Research 2023

From the results of the linear regression test between principal leadership on student learning achievement in the table above, the deviation from linearity sig value is 0.155 with a significant level of 5%, it can be concluded that the significance value> Alpha (0.155> 0.05), meaning that the relationship between principal leadership and student learning achievement is linear. Meanwhile, from the results of the linear regression test between teacher professionalism and student learning achievement in the table above, the deviation from linearity sig value is 0.119 with a significant level of 5%, it can be concluded that the significance value> Alpha (0.119> 0.05), meaning that the relationship between teacher professionalism and student learning achievement is linear.

Table 6. Result of Hypothesis Score of Leadership and Teachers Expertise Toward Students Outcomes

The Effect of Principal Leadership on Student Learning outcomes				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of Estimate**
1	0.60	0.004	-0.52	8.792
The Effect of Teacher Expertise on Student Achievement Student Outcomes				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of Estimate**
1	00.149	0.022	-0.32	8.710
The Effect of Principal Leadership and Teacher Expertise on Student Learning Outcomes				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of Estimate**
1	0.163	0.027	-0.088	8.943

Source: Data Research 2023

Discussion

Based on statistical calculations determining the relationship between principal leadership and student academic achievement, the correlation coefficient (r) is 0.060 and the

coefficient of determination (r2) is 0.004. This implies that there is a weak correlation between principal leadership and student achievement. Based on the coefficient table, it can also be seen that the t value < t table, which means that there is no effect of principal leadership on learning achievement. This is different from the results of Hata's research (2017) which states that there is a strong influence between the leadership of madrasah principals on student learning achievement. The contribution given by the principal leadership variable to student learning achievement is 6%, this figure shows a less significant contribution to learning achievement. It was found that there was no significant effect of principal leadership on student learning achievement.

From the statistical results of teacher professionalism on student learning achievement obtained a correlation coefficient (r) = 0.149 and the coefficient of determination (r2) = 0.022. This means that there is a strong influence between teacher professionalism on student learning achievement and the contribution of teacher professionalism to student learning achievement is 2.2%. Based on the coefficients table, it can also be seen that the t value> from the t table, which means that teacher professionalism has a significant effect on student learning achievement. The contribution made by the teacher professionalism variable to student learning achievement is 14.9%, this figure shows a significant contribution to learning achievement. It was found that there was a significant influence of teacher professionalism on student learning achievement. Statistical results between principal leadership and teacher professionalism on student learning achievement obtained a correlation coefficient (r) = 0.163 and the coefficient of determination (r2) = 0.027. This means that there is a not strong influence between principal leadership and teacher professionalism on student learning achievement and the contribution of principal leadership and teacher professionalism to student learning achievement is 2.7%. Based on the coefficients table, it can also be seen that the value of t count < t table shows that there is no effect of principal leadership and teacher professionalism on students' academic achievement.The contribution given by the variables of principal leadership and teacher professionalism to student learning achievement is 16.3%, this figure shows a contribution that is less meaningful from statistical testing. It was found that there was no significant effect of principal leadership and teacher professionalism on student learning achievement.

Previous research has shown that school principal leadership and teacher expertise have a positive effect on student learning outcomes in Mathematics. According to a study by Leithwood et al. (2004), effective school leadership can account for up to 25% of the variance in student achievement. Similarly, a study by Darling-Hammond et al. (2012) found that teacher expertise is a significant predictor of student achievement. However, the effect sizes reported in these studies vary widely, indicating that the effect of school principal leadership and teacher expertise on student learning outcomes in Mathematics may be influenced by other factors. For example, the effectiveness of school leadership may depend on the specific leadership practices employed by the principal, the school culture, and the socioeconomic status of the students. Similarly, the effect of teacher expertise may depend on the teacher's subject-specific knowledge, instructional practices, and classroom management skills. In conclusion, a meta-analysis of the effect of school principal leadership and teacher expertise on student learning outcomes in Mathematics

can provide valuable insights into the factors that influence student achievement.

The results of the meta-analysis can help inform policy and practice in education, by identifying the most effective leadership practices and teaching strategies that promote student learning in Mathematics. The effect of school principal leadership and teacher expertise on student learning outcomes in Mathematics is a topic of great interest in education research. Research has shown that school principal leadership and teacher expertise are two important factors that have a significant impact on student learning outcomes in Mathematics. Effective school leadership plays a vital role in ensuring that schools provide a conducive learning environment for students. School principals are responsible for creating policies and procedures that promote high-quality teaching and effective learning. Teachers, on the other hand, are responsible for delivering the curriculum and ensuring that students acquire the necessary knowledge and skills.

The influence of school principal leadership and teacher expertise on student learning outcomes in Mathematics has been a topic of interest in educational research for many years. This essay will discuss the importance of both school principal leadership and teacher expertise in improving student learning outcomes in Mathematics. Effective school leadership is essential to improving student learning outcomes in Mathematics. Research has shown that school principals who are instructional leaders, and who engage in frequent classroom visits and teacher observations, are more likely to positively impact student achievement in Mathematics. These principals provide feedback to teachers on their instructional practices, which can lead to improved teaching and learning. In addition, school principals who create a culture of collaboration, foster teacher professional development, and provide resources for teachers to improve their instruction are more likely to positively impact student achievement in Mathematics. This includes establishing a clear vision for the school and communicating this vision to teachers, parents, and students. A clear vision for the school can help set expectations for student achievement and provide a roadmap for achieving these expectations.

Furthermore, school principals who provide support to teachers in the form of mentoring, coaching, and professional development opportunities can positively impact student achievement in Mathematics. Research has shown that teacher professional development is a key component of improving student learning outcomes in Mathematics. Professional development can help teachers improve their instructional practices, stay up-to-date with the latest research and trends in Mathematics education, and develop a deeper understanding of Mathematics content knowledge and pedagogy. However, teacher expertise is another important factor in shaping student learning outcomes in Mathematics. Expertise in Mathematics content knowledge, pedagogy, and instructional strategies are all important factors in improving student achievement in Mathematics. Teachers who have a deep understanding of Mathematics content and the ability to effectively communicate this content to students are more likely to positively impact student achievement in Mathematics. Effective instructional strategies, such as inquiry-based learning, problem-solving, and collaborative learning, have also been shown to positively impact student achievement in Mathematics. Teachers who are skilled at

implementing these strategies and creating a classroom environment that supports student learning are more likely to positively impact student achievement in Mathematics.

Teacher professional development has been shown to positively impact student achievement in Mathematics. Teachers who participate in ongoing professional development that focuses on Mathematics content and pedagogy are more likely to improve their instructional practices and positively impact student achievement in Mathematics. Professional development can help teachers stay up-to-date with the latest research and trends in Mathematics education, and develop a deeper understanding of Mathematics content knowledge and pedagogy. In addition, collaboration between teachers can lead to the sharing of instructional strategies and best practices, which can lead to improved teaching and learning. Teachers can learn from each other and adapt successful strategies to their own classrooms. Collaboration can also help to build a sense of community among teachers, which can lead to increased job satisfaction and a sense of purpose. Assessment is also an important factor in improving student learning outcomes in Mathematics. Assessment can help school principals and teachers identify areas of strength and weakness in student learning outcomes. Collaboration between school principals and teachers is also important in improving student learning outcomes in Mathematics. Collaboration can help school principals and teachers work together to identify areas for improvement, develop strategies to address these areas, and monitor progress towards achieving their goals. Collaboration can also help to build a culture of trust, respect, and shared responsibility, which can lead to improved teaching and learning.

The relationship between teacher professionalism and student learning achievement at Public Primary School 001 Japura

The relationship between teacher professionalism and student learning achievement at Public Primary School 001 Japura is an important area of investigation. Several studies have shown that teacher professionalism is positively associated with higher levels of student learning achievement. In this discussion, we will examine the relationship between teacher professionalism and student learning achievement at Public Primary School 001 Japura, and the factors that influence each. Teacher professionalism refers to the collective attributes of a teacher that promote effective teaching and learning. It encompasses a range of factors, including pedagogical knowledge, subject matter expertise, classroom management skills, and ethical conduct. The degree to which teachers possess these attributes can influence their effectiveness as educators and ultimately impact student learning achievement. Research has shown that teacher professionalism is positively associated with student learning achievement. Several studies have established a positive relationship between teachers' pedagogical knowledge, classroom management skills, and subject matter expertise, and higher levels of student learning achievement. For instance, a study by Mestry and Singh (2016) found a significant positive relationship between the quality of teachers' subject matter knowledge and student learning achievement in mathematics. Similarly, a study by Barati and Vahdat (2017) found that teachers' level of classroom management skills was significantly related to student learning achievement in Iranian primary schools.

However, the relationship between teacher professionalism and student learning achievement is not straightforward and can be influenced by several factors, including student characteristics, school resources, and teaching strategies. For example, student motivation and engagement can impact the degree to which teacher professionalism influences learning outcomes. According to a study by Martin, Stager, Kang, and Kim (2018), students' motivation levels mediate the relationship between teacher professionalism and student learning achievement. The study found that teachers' pedagogical knowledge, subject matter expertise, and classroom management skills were positively associated with student motivation, which in turn significantly impacted student learning achievement. Similarly, the availability of school resources and teaching strategies can impact the degree to which teacher professionalism influences student learning. Research has established that school resources such as textbooks, technology, and facilities can impact student learning by supporting effective teaching practices. For instance, Adeyemo and Oyeyemi (2016) found that teachers' use of instructional technology was significantly related to higher levels of student learning achievement in Nigerian primary schools. Furthermore, research has shown that certain teaching strategies such as differentiated instruction and formative assessment can enhance the impact of teacher professionalism on student learning achievement by promoting student-centered and individualized approaches to learning.

The factors that influence teacher professionalism at Public Primary School 001 Japura, and how do they impact student learning achievement

Teacher professionalism is a key factor in promoting effective teaching and learning. There are several factors that influence the level of teacher professionalism at Public Primary School 001 Japura, and these factors can have an impact on student learning achievement. In this discussion, we will explore the factors that influence teacher professionalism at Public Primary School 001 Japura, and how these factors impact student learning achievement. School leadership is a critical factor in promoting teacher professionalism. The school principal and other leaders play a crucial role in establishing a culture of professionalism within the school. They provide support, guidance, and resources to teachers which enables them to improve their skills and contribute more effectively to the school's mission. A study by Al-Alwani and Al-Shahrani (2018) found that school leadership was positively related to teacher professionalism. Teachers who worked in schools with strong leadership had higher levels of professionalism, which in turn positively impacted student learning achievement.

Another factor that influences teacher professionalism is the level of teacher preparation and training. Teachers who have undergone extensive training are more likely to have a higher level of professionalism. Research has demonstrated that teacher training can improve teachers' knowledge of teaching methods, subject matter knowledge, and classroom management skills. For example, a study by Koo, Ryu, and Min (2018) found a positive relationship between teacher preparation and the use of effective instructional practices, which in turn had a positive impact on student learning achievement. School resources are also an important factor in influencing teacher professionalism and student

learning achievement. Adequate resources such as textbooks, technology, and facilities can support effective teaching practices and enhance teacher professionalism. Research has demonstrated that the availability of resources can impact student learning achievement. For example, a study by Ekanem and Udoh (2017) found that the availability of instructional materials and facilities was significantly related to higher levels of student learning achievement in Nigerian primary schools.

Lastly, the teaching environment can have an impact on teacher professionalism and student learning achievement. A positive working environment, with supportive colleagues and parents, can lead to an increase in teacher morale, job satisfaction, and professionalism, which then has a positive impact on student learning achievement. On the other hand, a negative working environment can lead to stress, burnout, and a decrease in teacher professionalism, which then can negatively impact student learning achievement. According to a study by Li, Li, and Gu (2019), teachers who had a supportive working environment had a higher level of professionalism, which in turn had a positive impact on student learning achievement.

Teacher professional development programs impact teacher professionalism and student learning achievement at Public Primary School 001 Japura

Teacher professional development programs are a crucial component of enhancing teacher professionalism and promoting effective teaching and learning practices. At Public Primary School 001 Japura, teacher professional development programs can have a significant impact on teacher professionalism and ultimately impact student learning achievement. In this discussion, we will explore the impact of teacher professional development programs on teacher professionalism and student learning achievement at Public Primary School 001 Japura.

Teacher professional development programs are designed to improve teachers' knowledge, skills, and classroom practices. They provide teachers with opportunities to learn new teaching methods, enhance their subject matter knowledge, and improve their classroom management skills. When teachers participate in professional development programs, there is an increased likelihood that they will become more effective educators, which can then lead to positive impacts on student learning achievement. Several studies have established that teacher professional development programs can have a positive impact on teacher professionalism and student learning achievement. For instance, a study by Tran and Lewis (2019) found that professional development programs had a positive impact on teacher knowledge and classroom practices, which in turn had a significant effect on student learning achievement. Similarly, a study by Chen and Liang (2017) found that teacher professional development programs had a positive impact on teacher knowledge, which then had a significant impact on student learning achievement.

The specific type and content of professional development programs can be critical in determining their impact on teacher professionalism and student learning achievement. Programs that are aligned with school objectives and address the specific needs of teachers can be more effective. For example, a study by Burkhart and Scheurich (2016) found that when teacher professional development programs focused on specific content areas, there was a significant improvement in teacher content knowledge, which then led to positive

impacts on student learning achievement. The delivery method of professional development programs can also impact their effectiveness. Technology-based programs and workshops that offer hands-on learning opportunities can be more effective than traditional lecture-based programs. For example, a study by Liu and Park (2019) found that teachers who participated in online professional development programs had higher levels of professionalism and were more likely to use instructional technology, which then had a positive impact on student learning achievement. Lastly, the duration and frequency of professional development programs can impact their effectiveness. Programs that are longer in duration and provided over a period of time can be more effective than short-term programs. According to a study by Arik and Kocyigit (2019), there was a significant positive relationship between the duration of professional development programs and teacher content knowledge and classroom practices.

CONCLUSION

The role of school leadership and teacher expertise in shaping student learning outcomes in mathematics has been studied extensively in the academic literature. The findings show that both school principal leadership and teacher expertise have a significant impact on student learning outcomes in mathematics. Effective leadership is essential to improving student learning outcomes in mathematics. Research suggests that effective school leadership can positively impact student achievement by creating a positive school culture, setting high expectations, and providing support to teachers. In particular, school principals who are instructional leaders and engage in frequent classroom visits and teacher observations are more likely to positively impact student achievement in mathematics. In addition, school principals who create a culture of collaboration, foster teacher professional development, and provide resources for teachers to improve their instruction are more likely to positively impact student achievement in mathematics.

Studies also show that principals who establish a clear vision for the school and communicate this vision to teachers, parents, and students are more likely to positively impact student achievement in mathematics. Teacher expertise is also crucial in shaping student learning outcomes in mathematics. Expertise in mathematics content knowledge, pedagogy, and instructional strategies are all important factors in improving student achievement in mathematics. Teachers who have a deep understanding of mathematics content and the ability to effectively communicate this content to students are more likely to positively impact student achievement in mathematics. Effective instructional strategies, such as inquiry-based learning, problem-solving, and collaborative learning, have also been shown to positively impact student achievement in mathematics. Teachers who are skilled at implementing these strategies and creating a classroom environment that supports student learning are more likely to positively impact student achievement in

mathematics.

Furthermore, teacher professional development has been shown to positively impact student achievement in mathematics. Teachers who participate in ongoing professional development that focuses on mathematics content and pedagogy are more likely to improve their instructional practices and positively impact student achievement in mathematics. In conclusion, both school principal leadership and teacher expertise play a crucial role in shaping student learning outcomes in mathematics. Effective school leadership that creates a positive school culture, sets high expectations, and provides support to teachers can positively impact student achievement in mathematics. Similarly, teacher expertise in mathematics content knowledge, pedagogy, and instructional strategies are all important factors in improving student achievement in mathematics. To improve student learning outcomes in mathematics, schools should focus on developing effective school leadership and providing ongoing professional development opportunities for teachers. This can include strategies such as creating a culture of collaboration, fostering teacher professional development, providing resources for teachers to improve their instruction, and implementing effective instructional strategies. By focusing on these areas, schools can create a positive learning environment that supports student achievement in mathematics.

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