



Comparison and Effect of Persistent Character and Mathematical Process Skills on Fractional Computing Operation Materials in Elementary School

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Abstract: To be able to understand a mathematical problem and be able to express thoughts and arguments, and provide solutions to a problem, students need to have persistent character and mathematical processing skills. This study aims to find out whether there is a comparison of persistent character and mathematical processing skills at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari in mathematics and to find out whether there is an influence between persistent character and mathematical processing skills at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari in mathematics. The research method used is mixed methods with a sequential explanatory research design. The instrument in this study used character persistence questionnaires and mathematical processing skills. The t-test results obtained from the table show that there is a relationship between the persistence character variable and students' mathematical processing abilities in the subject matter of mathematical fractional computation operations. From the results of the regression test obtained from the table, it can be seen that there is an influence between the sign tenacity variables and the students' mathematical processing abilities in the subject matter of mathematics in fractional computation operations. This research can be used as a reference to pay more attention to student learning persistence because persistence has a significant effect on students' mathematical processing skills at the elementary level. Thus, the researcher hopes that further research can observe the comparison and influence of persistence with mathematical processing skills in other materials.

Keywords: elementary school, persistent character, mathematical process skills

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INTRODUCTION

Learning is a form of interaction between teachers and students, learning materials, methods, strategies, and learning resources in a learning environment (Matovani, 2022; Ramadhani, 2022). The learning process plays an important role for students at every level of education, including elementary school (Medina, 2023; Nahar, 2023; Castro, 2023). One of the compulsory subjects that must be learned in elementary school is mathematics. Mathematics is one of the knowledge needed by humans in everyday life because in learning mathematics students are trained to think logically, and systematically, and be able to solve the problems they face in everyday life (Kamid et al., 2021; Yulianti et al., 2022). To be able to master and understand mathematics lessons, persistence is needed in studying them (Xiao & Sun, 2021; Kamid et al., 2021; Astutik, 2022).

Persistence is an attitude to do everything wholeheartedly, earnestly, and enthusiastically and not give up in facing a problem (Alkarimah & Nur'aini, 2022; Opinsi & Kurniah, 2022; Tuzzahrok & Murniningsih, 2021). Study persistence is very important and instilled in students. This is because, with persistence in learning, students will try to get the best results from their learning activities. In addition, students must be diligent in studying mathematics to understand concepts, and mathematical patterns and think logically when solving math problems (Supardi, 2015; Sari & Untarti, 2021; Hidayah et al., 2022). In addition, persistence is one of the scientific attitudes needed in applying process skills (Mahrun & Ardiansyah, 2021; Purwanto et al., 2021; Syazali & Umar, 2022). Student process skills play an important role for students in achieving optimal learning outcomes. Process skills aim to develop students' creative abilities and activeness in a lesson (Aulia, 2021; Bulut, 2021). In general, there are still students who lack process skills in mathematics lessons, so students quickly forget the mathematical concepts they have learned. Therefore, teachers need to train students' mathematical processing skills so that subject matter can be easily learned, understood, internalized, and remembered over a relatively long time (Kamid et al., 2021; Akbari et al., 2022).

Determination and students' mathematical processing skills affect students. The short-term effect of persistence is that students study seriously, try, and never give up on solving a problem (Susana & Wahyuni, 2021; Marissa, 2022). The short-term effect of mathematical process competence is that students can improve and solve mathematical problems by applying existing knowledge in real life. The long-term impact of

persistence and process skills enables students to achieve optimal performance and learning outcomes (Tamardiyah, 2017; Ilma et al., 2021; Alamsyah et al., 2018). The short-term impact if students do not have persistent character, namely students will have difficulty understanding the material in a lesson, while the long-term impact is that students obtain low learning outcomes (Iskandar, 2021; Kartina et al., 2023; Rini & Aldila, 2023). Likewise with the short-term impact if students do not have mathematical processing skills, namely students will find it difficult to understand mathematical concepts, and patterns of mathematical numbers, and find it difficult to solve mathematical problems. Meanwhile, the long-term impact is that students can obtain low achievement and learning outcomes (Fatwa, 2018; Hadi et al., 2018; Astuti et al., 2019; Rahmawati et al., 2023).

Several previous studies have been carried out related to the research that I will do. Research that has been done previously examines student learning persistence at school. The research that has been done, namely the research of Mufliva and Herman (2016) from the research he has done concluded that using the bar model can improve the ability to make mathematical models, mathematical procedural skills, and student learning persistence. Sulasmi's research (2019) states that the factors that influence interest in learning mathematics are diligence in learning, diligence in learning, neatness in doing assignments, having a study schedule, and discipline in learning. Furthermore, a study by Harden et al. (2020) found that the genetic link between follow-up and persistence could not be explained by differences between schools or size differences in family socioeconomic status (SES). Furthermore, research conducted by Gusnur (2021) shows the results that there is an influence between student learning persistence on higher-order thinking skills. Then Ilma et al.'s research (2021) from the results of his research concluded that there was a difference in the effect of the level of persistence in learning physics on cognitive learning outcomes. Furthermore, research conducted by Agustini (2022) shows the results that there is an influence between self-confidence, curiosity, and persistence in learning on the ability to pose students' math problems.

Several previous studies are relevant to the research I conducted which examined students' process skills in schools. Research conducted by Giarti (2015) states that authentic assessment integrated with a problem-based learning model can improve the mathematical problem-solving abilities of class VI students at SD Negeri 2 Bengle Wonosegoro Boyolali. Furthermore, research conducted by Pitriani et al. (2016) aims to determine the effect of students' perceptions of the learning process skills approach on students' mathematical connection abilities in learning mathematics on circle material. Aji (2019) conducted research with the results that the problem-based learning model assisted by media puzzles could improve the process skills and learning outcomes of fourth-grade students at SD N Tingkir Tengah 02. Then, research by Kamid et al. (2021) found that the learning model applied in each school has an impact on students' reactions and process skills and there is a relationship between student response and student process skills. Furthermore, research by Mairina et al. (2021) shows that learning science with a process skills approach can improve student learning outcomes in class IV SDN 08 Sungai Rumbai. Research by Ulya & Rahayu (2021) states that there is a relationship between mathematical thinking process skills and student learning outcomes. Research conducted by Tyera (2022) found that the application of an environment-based PPP approach can improve learning activities and learning outcomes.

From several previous studies, only research was found that examined one of the variables among the two variables to be examined, namely regarding students' learning persistence at school and students' mathematical processing skills at school. In addition, there is still no research on process skills in mathematics in elementary schools. Therefore, the researcher intends to update the previous research by using two variables, namely learning persistence and student processing skills that focus on mathematics in elementary schools. Based on the background above, the problems in this study can be formulated, namely: 1. What are the differences in the persistence and processing skills of students in mathematics in elementary schools? 2. What is the effect of persistence on students' processing skills in mathematics in elementary schools?? The aims of this research were: 1. To find out the difference between the persistence character and students' processing skills in mathematics in elementary schools, 2. To find out the effect of the persistence character on students' processing skills in mathematics in elementary schools.

METHODS

The type of research used in this research is the mixed method with sequential explanatory research. The research method used is a combination of two research methods. Qualitative and quantitative collection in sequential explanations mostly uses quantitative methods with quantitative methods (Kamid et al., 2021; Ekasari & Maulidinah, 2023; Hoyi & Minarni, 2023). In the Sequential Mixed Methods research plan, research is carried out at different times and sequentially, starting with quantitative research and then qualitative research. The purpose of this sequential explanatory design is to test the hypotheses with field factor research tools. Questionnaires, observation forms, and interviews were used as tools in this study. If the numbers used consist

of sign numbers, patience, and mathematical process skills. This instrument has 17 valid Likert scale items. The Reading Persistence Scale consists of 5 items and the Likert scale of mathematical process skills. The focus of this study is on two indicators of persistence: striving for the highest priority and never being dissatisfied with the results achieved. Mathematical Processing Skills Indicators Communication and Inference. The lattice of persistence character instruments and mathematical process skills in mathematics are as follows.

Table 1. Lattice instrument character persistence and mathematical process skills in mathematics

Variable	Type	Indicator	Statement Number
Persistent character	Base	Work according to top priority Never satisfied with the results obtained	b23, b24, b25 t26, t27, t28
Mathematical Process Skills	Integrated	Communication Conclusion	k8, k9, k10, k11, k12, k13, k14 k27, k28, k29, k30

The Mathematical Persistence Nursing Questionnaire for Students in Mathematics uses a Likert scale consisting of five categories so that each category is shown in Table 2:

Table 2. Category of persistence character indicators

Category	Indicator	
	Work according to top priority	Never satisfied with the results obtained
Not Very Good	3-5,4	3-5,4
Not Good	5,5-7,8	5,5-7,8
Enough	7,9-10,2	7,9-10,2
Good	10,3-12,6	10,3-12,6
Very Good	12,7-15	12,7-15

Since the link scale consisting of categories is used on the mathematics students' observation sheet of mathematical processing, each category has an interval of each category are shown in Table 3:

Table 3. Categories of mathematical process skills

Category	Indicator	
	Communication	Conclusion
Not Very Good	7 - 12,25	4-7
Not Good	12,26 - 17,5	7,1-10
Good	17,6 - 22,75	10,1-13
Very Good	22,76 - 28	13,1-16

After the character categories persistence and mathematical process skills there is also a grid of interviews with students which can be seen in Tabel 4:

Table 4. Student interview grid

Variable	Statement
Persistent character	Did you take notes on the mathematics subject matter taught by the teacher? Do you work on assignments right away when the teacher gives them?
Mathematical Process Skills	Do you understand the math lessons taught by the teacher? Are you active in class learning and enjoy conducting discussions?

The population of this study amounted to 210 students. The sample of this study were students at 4 elementary schools in Batanghari Regency, namely SDN 34 Batang Hari, SDN 64 Batanghari, MIN 3 Batanghari, and MIN 2 Batanghari, from each elementary school 18 students became the research sample so that there were 72 students in total. from 4 schools. Sampling using random sampling. The random sampling technique is a technique characterized by each sample having the same opportunity to be selected, with this technique samples can be obtained easily and quickly (Budiarti et al., 2022; Ariska, 2023; Juliana & Ermayani, 2023). Random sampling is used as a data analysis technique. Random sampling is a technique characterized by the fact that each sample is chosen uniformly, so obtaining a sample using this technique is easy and fast. Descriptive statistical tests and inferential tests in the form of hypothesis testing and hypothesis testing were performed on these data. The acceptance test consists of three tests, which are the normality test, linearity test, and flatness test. Then hypothesis testing in the form of a test is a T-test and test of correlation. A t-test

is used. to determine the comparison between attitudinal variables and scientific variables. A test of correlations the relationship between attitudinal variables and students' scientific literacy. This test was tested using SPSS 26 for accurate results.

RESULT AND DISCUSSION

The results of the descriptive for the variable personality resilience and math performance are explained below. Questions about the resilience of character and math. Recruitment Metrics Statement: People work according to their top priorities and are. never satisfied with the results achieved. Matht Processing Skills Index: Communication and Reasoning. Where can I find out the distribution of survey results at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari? The table below describes the active indicator persistence variable according to the highest priority.

Table 4. Description of the persistence indicator according to the main priority

School	Category	Range	F	%	Mean	Median	Min	Max
SDN 35 Batanghari	Not Very Good	3-5,4	0	0	9,16	10	6	12
	Not Good	5,5-7,8	3	16,66%				
	Enough	7,9-10,2	12	66,66%				
	Good	10,3-12,6	3	16,66%				
	Very Good	12,7-15	0	0				
SDN 64 Muara Bulian	Not Very Good	3-5,4	0	0	10,55	10,5	8	13
	Not Good	5,5-7,8	0	0				
	Enough	7,9-10,2	9	50%				
	Good	10,3-12,6	7	38,88%				
	Very Good	12,7-15	2	11,11%				
MIN 3 Batanghari	Not Very Good	3-5,4	0	0	10,55	10,5	7	14
	Not Good	5,5-7,8	1	5,55%				
	Enough	7,9-10,2	8	44,44%				
	Good	10,3-12,6	6	33,33%				
	Very Good	12,7-15	3	16,66				
MIN 2 Batanghari	Not Very Good	3-5,4	0	0	11	11	7	15
	Not Good	5,5-7,8	1	5,55%				
	Enough	7,9-10,2	7	38,88%				
	Good	10,3-12,6	5	27,77%				
	Very Good	12,7-15	5	27,77%				

From the table description above, it can be seen grade SDN 35 Batanghari is higher than SDN 6 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari, so it can be said that SDN 35 Batanghari is better than SDN 6 Muara Bulian, MIN 3 Batanghari, MIN 2 indicator persistent sign variable Batanghari is never satisfied with the results achieved. In addition, the following table shows the description of the sign variables of the mathematical process skills of communication indicators.

Table 5. The description of the persistence indicator is never satisfied with the results obtained

School	Category	Range	F	%	Mean	Median	Min	Max
SDN 35 Batanghari	Not Very Good	3-5,4	0	0	10,61	10,5	9	13
	Not Good	5,5-7,8	0	0				
	Enough	7,9-10,2	9	50%				
	Good	10,3-12,6	7	38,88%				
	Very Good	12,7-15	2	11,11%				
SDN 64 Muara Bulian	Not Very Good	3-5,4	0	0	10,44	10,5	7	14
	Not Good	5,5-7,8	1	5,55%				
	Enough	7,9-10,2	8	44,44%				
	Good	10,3-12,6	8	44,44%				
	Very Good	12,7-15	1	5,55%				
MIN 3 Batanghari	Not Very Good	3-5,4	0	0	11,05	11	8	14
	Not Good	5,5-7,8	0	0				
	Enough	7,9-10,2	7	38,88%				
	Good	10,3-12,6	7	38,88%				
	Very Good	12,7-15	4	22,22%				

MIN 2 Batanghari	Not Very Good	3-5,4	0	0	11,16	11	8	14
	Not Good	5,5-7,8	0	0				
	Enough	7,9-10,2	6	33,33%				
	Good	10,3-12,6	7	38,88%				
	Very Good	12,7-15	5	27,77				

Based on the description, it is known that the comparison with the medium categories at SDN 35 Batanghari is higher than SDN 64 Muara Bulian. MIN 3 Batanghari, MIN 2 Batanghari so can be said that SDN 35 Batanghari is superior to SDN 35 Batanghari 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghar on the character persistence variable. on the indicator is never satisfied with the results obtained. Furthermore, the description of the character variables of mathematical process skills on communication indicators is shown in the following table.

Table 6. Description of the mathematical process skills variable on communication indicators

School	Category	Range	F	%	Mean	Median	Min	Max
SDN 35 Batanghari	Not Very Good	7-12,25	2	11,11%	17,55	19	7	24
	Not Good	12,26-17,5	5	27,77%				
	Good	17,6-22,75	10	55,55%				
	Very Good	22,76-28	1	5,55%				
SDN 64 Muara Bulian	Not Very Good	7-12,25	4	22,22%	17	17,5	10	23
	Not Good	12,26-17,5	5	27,77%				
	Good	17,6-22,75	8	44,44%				
	Very Good	22,76-28	1	5,55%				
MIN 3 Batanghari	Not Very Good	7-12,25	5	27,77%	16,11	16,5	10	22
	Not Good	12,26-17,5	5	27,77%				
	Good	17,6-22,75	8	44,44%				
	Very Good	22,76-28	0	0				
MIN 2 Batanghari	Not Very Good	7-12,25	3	16,66%	16,16	17	9	22
	Not Good	12,26-17,5	6	33,33%				
	Good	17,6-22,75	8	44,44%				
	Very Good	22,76-28	0	0				

The comparison with the good category at SDN 35 Batanghari. is higher than SDN 64 Muara Bulian., MIN 3 Batanghari, MIN 2 Batanghari so it can be said that SDN 35 Batanghari is superior to SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari on the character variables of mathematical process skills on communication indicators. Furthermore, the description of the character variables of mathematical process skills in the conclusion indicators is shown in the following table.

Table 7. Variable description of mathematical process skills on the Conclusion indicator

School	Category	Range	F	%	Mean	Median	Min	Max
SDN 35 Batanghari	Not Very Good	4-7	2	11,11%	10,16	10	4	14
	Not Good	7,1-10	11	61,11%				
	Good	10,1-13	5	27,77%				
	Very Good	13,1-16	0	0				
SDN 64 Muara Bulian	Not Very Good	4-7	0	0	11,16	11	9	15
	Not Good	7,1-10	12	66,66%				
	Good	10,1-13	6	33,33%				
	Very Good	13,1-16	0	0				
MIN 3 Batanghari	Not Very Good	4-7	2	11,11%	10,83	11	4	14
	Not Good	7,1-10	9	50%				
	Good	10,1-13	7	38,88%				
	Very Good	13,1-16	0	0				
MIN 2 Batanghari	Not Very Good	4-7	2	11,11%	10,83	11	4	14
	Not Good	7,1-10	8	44,44%				
	Good	10,1-13	8	44,44%				
	Very Good	13,1-16	0	0				

The comparison with the good category at MIN 2 Batanghari is higher than SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari so it can be said that MIN 2 Batanghari is superior to SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, on the character variables of mathematical process skills on communication

indicators. Furthermore, the normality test for persistence and mathematical process skills is shown in the following table.

Table 8. Test for normality of persistence character and mathematical process skills

School	Variable	N	Sig. (2-tailed)
SDN 35 Batanghari	Persistent character	18	0.335
	Mathematical process skills	18	0.334
SDN 64 Muara Bulian	Persistent character	18	0.163
	Mathematical process skills	18	0.136
MIN 3 Batanghari	Persistent character	18	0.261
	Mathematical process skills	18	0.237
MIN 2 Batanghari	Persistent character	18	0.472
	Mathematical process skills	18	0.452

The data is normal because the normality test was obtained by the Kolmogorov-Smirnov test, significance value > 0.05. In addition, the linearity test of the nature of persistence and mathematical process skills is presented in the following table.

Table 9. Linearity test for persistence and mathematical process skills

School	Variable	N	Sig. (2-tailed)
SDN 35 Batanghari	Persistent character	18	0.016
	Mathematical process skills	18	0.017
SDN 64 Muara Bulian	Persistent character	18	0.022
	Mathematical process skills	18	0.024
MIN 3 Batanghari	Persistent character	18	0.032
	Mathematical process skills	18	0.034
MIN 2 Batanghari	Persistent character	18	0.027
	Mathematical process skills	18	0.028

This data is normally distributed. The test for normality was obtained by the Kolmogorov-Smirnov test, significant value > 0.05. In addition, the linearity test of the nature of determination and mathematical process skills is presented in the following table.

Table 10. Homogeneous test of persistence character and mathematical process skills

School	Variable	N	Sig.. (2-tailed)
SDN 35 Batanghari	Persistent character	18	0.032
	Mathematical process skills	18	0.033
SDN 64 Muara Bulian	Persistent character	18	0.036
	Mathematical process skills	18	0.037
MIN 3 Batanghari	Persistent character	18	0.042
	Mathematical process skills	18	0.044
MIN 2 Batanghari	Persistent character	18	0.047
	Mathematical process skills	18	0.048

The homogeneous test has homogeneous determination and mathematical processing capabilities. The result of Sig proves to be less than 0.05. In addition, the t-test of the persistent sign is presented in the following table.

Table 11. Persistence character t-test

School	Variable	t	df	Sig. (2-tailed)	Mean Difference
SDN 35 Batanghari	Persistent character	16.145	18	.025	65.55553
SDN 64 Muara Bulian	Persistent character	15.811	18	.022	65.55553
MIN 3 Batanghari	Persistent character	60.352	18	.028	80.83331
MIN2 Batanghari	Persistent character	68.327	18	.032	95.66661

The persistence marks were compared for SDN 35 Batanghar, SDN 6 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghar. This is demonstrated by sig. (2-tailed) is less than 0.05. In addition, the t-test of mathematical process skills is presented in the following table.

Table 12. Mathematical process skills T-test

School	Variable	t	df	Sig. (2-tailed)	Mean Difference
SDN 35 Batanghari	Persistent character	16.143	18	.024	65.55554
SDN 64 Muara Bulian	Persistent character	15.815	18	.021	65.55554
MIN 3 Batanghari	Persistent character	60.353	18	.028	80.83332
MIN2 Batanghari	Persistent character	68.326	18	.031	95.66666

There is a comparison between math processing skills at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari. It is proven by the results of sig (2-tailed) smaller than 0.05. Furthermore, the character regression test of persistence and mathematical process skills is shown in the following table.

Table 13. Hypothesis Regression Test with ANOVA on Persistent Character and Mathematical Processing Skills

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	15.739	1	16.725	.949	.032 ^b
Residual	265.372	71	15.584		
Total	281.111	72			

The ANOVA regression test from persistent character and mathematical process skills. So it can be concluded that persistent character and mathematical process skills influence each other. This is evidenced by the sig. < than 0.005. The table below is the results of the Regression test testing f with ANOVA from persistent character and mathematical process skills as follows:

Table 14. Regression test of character persistence and mathematical process skills

R	R Square	Adjusted R Square	Std. An error in the Estimate
.237 ^a	.056	.003	4.07146

The regression test of the persistence character and mathematical process skills regarding R with .237, R square .056, Adjusted R square .003, and Std. An error of the Estimate 4.07146. Then the table below shows the results. The regression test on persistent character and mathematical process skills is as follows:

Table 15. Character Regression Test on Persistent Character and Mathematical Processing Skills

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Persistent character >< KPM	66.490	14.698		4.523	.000

Concluded that there is .an influence between persistent character and mathematical process skills. It is proven by the results of sig. (2-tailed) is smaller than 0.05. Next, the results of interviews with students are presented. In interviews with students, namely, the first question is Did you record the mathematics subject matter taught by the teacher? The students of SDN 35 Batanghari all answered by taking notes on the mathematics subject taught by the teacher. On average, students at SDN 64 Muara Bulian answered by taking notes on the mathematics subject taught by the teacher. Students at MIN 3 Batanghari on average answer notes on the mathematics subject matter taught by the teacher. The average Batanghari MIN 2 students. answered taking notes on the math subject taught by the teacher. The second question is Do you immediately do the assignment when the teacher gives it? The students of SDN 35 Batanghari all answered directly when they were given a task by the teacher. On average, students at SDN 64 Muara Bulian answered that they immediately did their assignments when the teacher gave them. Students at MIN 3 Batanghari on average answered directly doing assignments when given by the teacher. Students at MIN 2 Batanghari on average answer directly doing assignments when given by the teacher. The third question is Do you understand the learning of mathematics teaching by the teacher? On average, students at SDN 35 Batanghari understand the mathematics taught by the teacher. On average, students at SDN 64 Muara Bulian answered that they did not understand the mathematics taught by the teacher. Students at MIN 3 Batanghari on average answered that they understood a little about the mathematics taught by the teacher. On average, MIN 2 Batanghari students answered that they did not understand the mathematics taught by the teacher. The fourth question is Are you active in class and enjoy conducting discussions? The students of SDN 35 Batanghari on average all answered that they were active in class learning and liked to have discussions. On average, students at SDN 64 Muara Bulian answered that they were not very active in learning in class, but some were happy to have discussions. Students at Min 3 Batanghari on average answered that they were active in class learning and liked to have discussions. The average Batanghari MIN 2 students answered that they were rarely active in class learning and were not always happy to have discussions because mathematics was quite difficult.

Based on the description presented by Tabel. 4, it is known that the middle-class ratio of SDN 35 Batanghari is higher than SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari, so it can be said that SDN 35 Batanghari is better than SDN 64. Muara Bulian, MIN 3 Batanghari, 2 Batanghar MIN persistent indicator is working at the highest priority. Furthermore, Table 5 shows that the middle-class ratio of SDN 35 Batanghari is higher than SDN 64 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari, so it can be said that SDN 35 Batanghari is better than SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari on the ever-changing nature of indicators, never satisfied with the results achieved. In addition, based on Table 6, it was found that SDN 35 Batanghari in the good category was higher than SDN 64 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari, so it can be said that SDN 35 Batanghari is better than SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari on the variable markers of mathematical process skills on communication indicators. Figure 7 shows a comparison with the good category. labeling indicators of the formation of mathematic process skills.

Next, an assumption test is carried out which consists of a normality test, linearity test, and homogeneity test. The normality test aims to determine whether the data is normally distributed or not because the Kolmogorov-Smirnov score is greater than 0.05 (Kamid et al., 2021; Ramli, 2022; Latief & Novalia, 2023). Based on the results obtained in Table 8. it can be data is normally distributed. The normality test was obtained by the Kolmogorov-Smirnov test, with a significant value of > 0.05 . The second assumption test is the linearity test. Based on Table 9 it can be explained that the linearity test of the variables above shows that there is a linear relationship between the persistence variable and mathematical processing skills. The sig results show less than 0.05. Then test the third assumption, namely the homogeneity test. From the result of Table 10, it can be obtained that the mathematical process skills and persistent character are expressed as homogeneous, with a sig result shown to be less than 0.05.

The first hypothesis test is the t-test which aims to find out the comparison between the two variables (Ernawati et al., 2022; Kamid et al., 2021; Hendriyani, 2023). In Table 11. it can be seen that SDN 35 Batanghari, SDN 64 Muara Bulian, three MIN Batanghari, and two MIN Batanghari have indications of comparable persistence. Determined by the results of sig. (both sides) less than 0.05. Then from Table 12, it can be interpreted that SDN 35 Batanghari, SDN 64 Muara Bulian, three MIN Batanghari, and two MIN Batanghari have indications of comparable persistence. Determined by the results of sig. (both sides) less than 0.05. Then a simple linear regression test was performed. From Table 13, it is found that the nature of resilience and mathematical abilities influence each other. This is evidenced by sig., < 0.005 . Based on Table 14, the results of the regression test on developmental characteristics and learning achievement in mathematics for R were 0.237, the R-squared was 0.056, the adjusted R-squared was 0.003, and the standard error estimate was 4.07146. Furthermore, in Table 15 it can be interpreted that there is an influence between the persistence character and mathematical processing skills. Determined by the results of sig. (both sides) less than 0.05. Based on the results described above, it can be seen that there is an influence between persistent character and mathematical processing skills. Determined by the results of sig (both sides) less than 0.05.

This research regarding persistence traits. However, some of the tests performed in this study, including correlation tests, were not performed in previous studies, limiting the metrics used in the tests. The regression test is used to determine the effect of patience and mathematical processing power. This research is also in line with previous research by (Rizqi et al., 2019) regarding mathematical processing abilities. However, previous studies have not tested multiple schools. In this study, tests were carried out in four schools to find out more precisely which variables were tested. Competitive characteristics related to indicators of communication skills. Student achievement in mathematical communication is determined by persistence (Abdi, 2018; Rosada, 2023; Refliana & Pertiwi, 2023). Students need to understand certain mathematical problems and develop communication skills that allow them. to express their thoughts and arguments about these problems (Nahdi, 2019). In addition, communication process skills enable students to find problems and find solutions or identify solutions to problems (Ernawati et al., 2022; Karuku, 2023). Therefore patience is very important for students to apply their communication skills.

The tenacity number refers to an indicator of selling ability. This type of training plays an important role in the application, and process capability to be able to draw the right conclusions from the actions taken (Destya, 2015). Persistence: Help students successfully carry out the activity and practice reasoning drawing skills. Students can describe the results of their observations (Hardi et al., 2023; Perdana et al., 2023). This shows that the type of persistence also plays an important role in developing students' abilities on the conclusion indicator. The novelty is the comparison and impact of persistence type and mathematical processing power. Several studies have investigated three variables: type of education and type of mathematical ability in four different neighborhoods/cities. With the help of this research, we can find out more accurately and with certainty from the tests carried out in this research. This type of consistency is very important for existing learning to achieve good student learning outcomes. From this study, it can be seen, that the type of persistence has a significant effect on mathematics learning achievement at the elementary level. The implication of this research is the type of resilience and mathematical process skills that can be applied to student learning outcomes. A good persistent

type affects the persistent type and its mathematical processing ability (Amin et al., 2021; Septi et al., 2022). So that students don't experience learning difficulties. and student learning outcomes increase. This study found that the durability is very good. This has an important impact on increasing knowledge about mathematical processes in learning mathematics. Which important handling can be accomplished with an excellent primary student calculator? The limitations of this study are only school-specific comparisons. However, no sex comparison test was carried out between male and female students, so that the variables of mathematical practice and mathematical competence can be identified separately (Kamid et al., 2021). The researcher suggests more research to compare gender variables.

CONCLUSION

This research conclude that there was a comparison between the persistence character and the mathematical processing skills of students at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, and MIN 2 Batanghari in mathematics and there was an influence between persistent character and mathematical processing skills at SDN 35 Batanghari, SDN 64 Muara Bulian, MIN 3 Batanghari, MIN 2 Batanghari in mathematics. Persistent character and mathematical process skills are necessary for students to be able to train students to think higher and behave actively in the learning process so that they can have higher quality and quantity of learning outcomes as well. The implications of this study are that good persistence affects persistent character and mathematical processing skills so that students do not experience learning difficulties and can improve student learning outcomes.

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