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The Correlation Between Math Anxiety Level and Numeracy Skills of Fifth-Grade Students

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Abstract: This study aims to determine the correlation of math anxiety to numeracy skills. The sample in this study was one class, namely class V at 5 Elementary School Selong with a total of 27 people. The research design used is correlational with quantitative research type. The results of the validity and reliability tests stated that there were 17 valid and highly reliable math anxiety questionnaire statement items and there were 20 valid and reliable numeracy test items. To analyze the data, researchers used the Person Product Moment correlation which previously conducted a normality test manually with the help of excel using the Saphiro Wilk formula. Based on data analysis, the calculation of the variable relationship is -0.40. This means that math anxiety with numeracy skills is a negative correlation. Based on the interpretation of the correlation coefficient, the relationship between the two variables is in the moderate category. The amount of contribution of math anxiety variables to numeracy skills is 16% and 84% is determined by other variables. After that, the significance test is carried out with the T-test, then seen from the hypothesis testing criteria, namely obtained t_{count} = -2.17 while t_{table} (5%) = 2.06. From the calculation results, it can be seen that the result of t_{count} = -2.17 < t_{table} = -2.06. This shows that H_0 is rejected and H_1 is accepted. So it is concluded that "there is a significant correlation between math anxiety level and students' numeracy skills".

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Introduction

Education is an effort to foster and develop human character. Education plays a central role in national development, because it aims to explore the potential of individuals so as to influence and determine the progress of the national development process from various aspects. Education must be prepared in such a way that it is able to answer all the needs of life's problems and challenges.

In the 21st century, each individual is required to have knowledge and skills related to numeracy literacy in learning related to mathematical concepts, in reasoning, analyzing, and interpreting data to solve problems related to everyday problems. Numeracy is the knowledge and ability to use various numbers and symbols related to basic mathematical concepts to solve relevant practical problems that are contextual in nature, as well as to examine information

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provided in various formats including graphs, tables, charts, and the like and then use the interpretation of the results of the analysis in decision making (Han et al., 2017). According to (Dewayani et al., 2021) Numeracy skills are the ability to think using mathematical concepts, procedures, facts, and tools to solve everyday problems in various types of contexts that are relevant to individuals as Indonesian citizens and citizens of the world.

Indonesia often participates in the Program for International Student Assessment (PISA). A test designed by the Organization for Economic Co-operation and Development (OECD) to assess the reading, mathematics and science skills of Indonesian students who have completed or are about to complete primary education. The following is a summary of Indonesia's PISA test results based on the Education Assessment Center of Balitbang Kemendikbud:

Table 1. PISA Survey Result Score

Test	Survey Result Score					
	Sciences		Read		Math	
PISA	2012	382 point	2000	371 point	2003	360 point
	2015	402 point	2009	402 point	2006	391 point
	2018	396 point	2018	371 point	2018	379 point
	2022	383 point	2022	359 point	2022	366 point

(Kemendikbud, 2019, p. 42) (Han et al., 2017)
(OECD, 2023a) (OECD, 2023b, p. 29)

Based on the table above, it can be seen that the results obtained are concerning, so that one of the problems of the Indonesian nation that must be taken seriously is the interest in mathematical numeracy. Mathematics has a very important role both in school and in everyday life. The purpose of teaching mathematics is to improve intelligence, knowledge, personality, noble character, and skills to live independently and follow further education. In addition, mathematics also contributes a lot to the development of science and technology. This proves that math is closely related to life. Many life problems require the ability to count and measure. This shows that the importance of mathematics in problem solving.

Not a few students think that math is a complicated subject so it is not uncommon for students to feel afraid and feel themselves incapable of math lessons. The real fear of math lessons is when children are afraid if the answer they get is wrong, because the wrong answer means failure so children are required to always be able to give the right answer. Students tend to see math as a lesson that causes fear and boredom because it is related to numbers and formulas. Supported by the facts stated (Setiawati, H & Syaf, A, 2018) there are differences in characteristics between the nature of children and the nature of mathematics, namely in the way of thinking elementary school students are at the pre-concrete stage while the nature of mathematics is abstract. So that in learning math requires high concentration so that until now there are quite a lot of students who have difficulty in learning math.

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Difficulties in learning math can be caused by several external and internal factors. Anxiety is one aspect that affects achievement in learning math. According to Himmi and Azni in (Zebua, T, 2022) "Math anxiety is a feeling of tension and anxiety that causes errors in numbers and the solution of mathematical problems in a broad scope in everyday life and school situations". According to (Freedman, 2006) "math anxiety can be a disabling condition, causing humiliation, resentment, and even panic. math anxiety, a feeling of intense frustration or helplessness about one's ability to do math".

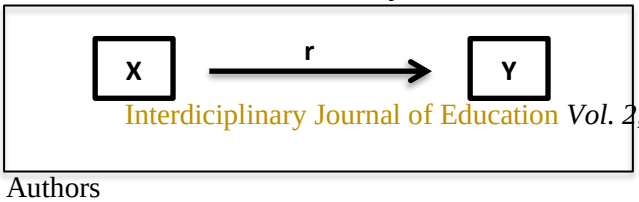
Mathematics is in need of attention, generally many people's assumptions that math is a measure of one's intelligence. So that many students who experience math anxiety, tend to feel worried about others who will consider themselves stupid, have feelings of discomfort, and are afraid of what to do. This is in line with (Cavanagh & Sparrow, 2010a) dividing math anxiety into three aspects, namely attitude aspects, cognitive aspects, and somatic aspects. The attitude aspect describes math anxiety based on a person's attitude or view of mathematics. The cognitive aspect describes a person's anxiety about math based on their ability to solve math problems. While the somatic aspect describes a person's anxiety physically when interacting with math.

Based on the results of interviews with fifth grade homeroom teachers at 5 Elementary School Selong, it was found that one of the things that affects low learning outcomes is students' fear of learning, especially in learning mathematics. This is evidenced by students tend to be afraid of learning math, afraid of being told to count, do problems, most students do not like math lessons like they like other lessons. Students also when given assignments tens to find it difficult and complain that they cannot do it, even though the form of the problem given is not much different from the examples discussed earlier. Even though they have been given examples, students simply follow the same steps but they still complain of difficulties. Most students stated that they were not interested in math and they had a general view that math lessons were considered complex and less fun.

If math anxiety has dominated an individual's mind, it will be difficult for him to think and concentrate, which in turn will make students reluctant to learn mathematics and tend to stay away from the mathematical environment. So that it will be related to the low numeracy skills possessed by students. With this basic foundation, the researcher is motivated to carry out research with the title The Correlation between Mathematics Anxiety Level and Numeracy Skills of Fifth-Grade Students.

Research Method

The type of research method used in this research is quantitative. According to (Sugiyono, 2017) quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, data analysis is quantitative / statistical, with the aim of testing predetermined hypotheses. The research design used in this study is correlational research. According to Ibnu, et al in (Kusumastuti et al., 2020) correlational research intends to reveal correlative relationships between variables. Correlative relationships refer to the tendency that variations in a variable are followed by variations in other variables.



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X = Math Anxiety Y= Numeracy Skills

Picture 1. Correlational research paradigm

Data were collected through questionnaires and tests. Questionnaire is a list of statements that must be answered by students. This questionnaire is used to collect student math anxiety data. While tests are tools used in the framework of measurement and assessment, usually in the form of a number of questions / questions given to be answered by students. This test is used to collect data on students' numeracy skills. In analyzing the data, first conduct a normality test with the Saphiro Wilk formula, namely:

$$T3 = \frac{1}{D}\left[\sum_{i=1}^{k} ai(X_{n-i+1} - X_i\right]^2$$

After that, test the hypothesis using the Pearson product moment formula, namely:

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

Result

Based on the calculation of the normality test using the Shaphiro Wilk formula, the math anxiety data T_{3count} is 0.93 and the numeracy ability data T_{3count} is 0.94, while the T_{table} is 0.92. Because the obtained value of $T_{3count} > T_{table}$ is 0.93> 0.92 // 0.94 > 0.92, the math anxiety data and numeracy ability data in the research sample are normally distributed. For more details can be seen in the following table.

Table 2. Normality Test

Variable	$\bar{X}$	Statistik		Description
		T_{3count}	T_{table}	
Math Anxiety	49,63	0,93	0,92	Normal
Numeracy Skills	37,96	0,94		Normal

In this study, after knowing that the data is normally distributed, hypothesis testing is then carried out to determine whether the hypothesis is accepted or rejected.

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

$$r = \frac{27(49515) - (1340)(1025)}{\sqrt{(27(69286) - (1340)^2)(27(42975) - (1025)^2)}}$$

$$r = \frac{1336905 - 1373500}{\sqrt{(1870722 - 1795600)(1160325 - 1050625)}}$$

$$r = \frac{-36595}{\sqrt{(75122)(109700)}}$$

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$r = \frac{-36595}{\sqrt{8240883,400}} = \frac{-36595}{90779,31}$

r = - 0,40

Based on the results of the correlation analysis above, the value of r = - 0.40 is obtained. This means that math anxiety with numeracy skills is a negative correlation, namely the relationship between two variables that move in opposite directions. In other words, if variable X increases, then variable Y decreases. And based on the interpretation of the correlation coefficient, the relationship between the two variables is in the moderate category.

The contribution or coefficient of determination of the mathematics anxiety variable with numeracy skills is:

KD (r^2) = r^2 × 100%

= $(-0,40)^2$ × 100%

= 0,16 × 100%

= 16 %

The above shows that math anxiety contributes 16% to numeracy skills and the remaining 84% is determined by other variables.

$t_{count} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$

$= \frac{-0,40\sqrt{27-2}}{\sqrt{1-(0,40)^2}}$

$= \frac{-0,40\sqrt{25}}{\sqrt{1-0,16}}$

$= \frac{-0,40(5)}{\sqrt{0,84}}$

$= \frac{-2}{0,92}$

t_{count} = -2,17

t_{table} : t (α ; n-k) t = (α ; 27 - 2) maka, t_{table} (0,05; 25) = 2,06

Because $t_{count} > t_{table}$, // $t_{count} < - t_{table}$, -2.17 < -2.06, then H_0 is rejected.

Discussion

5 Elementary School Selong is a B accredited public elementary institution located in the special city of Selong with a complete address on Jalan. Prof. M. Yamin, SH. RT. 36 Kebon Talo Selong, East Lombok Regency, West Nusa Tenggara Province. This elementary school is

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chaired by Mr. Pathulloh. Based on the basic education data (Kemendikbudristek, 2024), this primary school has 20 teachers consisting of 7 male teachers and 13 female teachers. 7 of these teachers are certified civil servant teachers and 1 teacher is a first aid worker. 5 Elementary School Selong also has 11 study groups with 286 students consisting of 156 boys and 130 girls.

Based on interviews with the fifth grade homeroom teacher at 5 Elementary School Selong, it was found that one of the things that affects low learning outcomes is students' fear of learning, especially in learning mathematics. This is evidenced by the fact that students tend to be afraid of learning math, afraid of being told to count, do problems, most students do not like math like they like other lessons. Students also when given assignments tend to find it difficult and complain that they cannot do it, even though the form of the problem given is not much different from the examples discussed earlier. Even though they have been given examples, students simply follow the same steps but they still complain of difficulty. Most students stated that they were not interested in math, and they had a general view that math was complex and not fun.

The research entitled "The Correlation of Mathematics Anxiety Level with the Numeracy Ability of Grade V Students" was conducted from May 8, 2024 to May 18, 2024. The sample in this study were 27 fifth grade students at 5 Elementary School Selong. In this study, researchers limited the problem formulation to three namely, knowing the description of math anxiety, numeracy skills, and the relationship between math anxiety and student numeracy skills.

1. Math Anxiety Level of Fifth-Grade Students

Based on the results of the low category math anxiety questionnaire, 18.52% or 5 students responded. Students who experience math anxiety in this low category mean that from the somatic aspect some students look uncomfortable and feel threatened when given a math test, from the affective aspect they feel unsure they can do it, think they will have difficulty doing it, and feel like running away from math tests, while from the cognitive aspect students only feel confused in doing math tests.

The results of the math anxiety questionnaire in the moderate category were 66.67% or as many as 18 students responded. Students who experience math anxiety in this moderate category mean that from the somatic aspect some students experience sweaty palms, heart palpitations and dry mouth when doing math tests, from the affective aspect students do not want to do math tests, while from the cognitive aspect some students cannot think clearly and the mind becomes empty when doing math tests.

The results of the math anxiety questionnaire in the high category were 14.81% or as many as 4 students who responded. Students who experience math anxiety in this high category mean that from the somatic aspect some students feel their bodies trembling when taking math tests, from the affective aspect some students become uncontrollable and afraid to take math tests, while from the cognitive aspect some students become frustrated and worried about what other people will say who will think they are stupid when taking math tests.

The categorization of mathematics anxiety levels in grade V students is in accordance with the indicators of mathematics anxiety according to (Cavanagh & Sparrow, 2010a) "Extreme anxiety is characterized by somatic indicators such as heart palpitations, abnormal breathing, and sweaty palms; high anxiety by cognitive indicators such as confusion, a blank

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mind, and loss of control; and low anxiety by attitudinal indicators such as worry, expectations of difficulty and lack of confidence". Which can be interpreted that high anxiety is characterized by somatic indicators such as heart palpitations, abnormal breathing, and sweaty palms; high anxiety by cognitive indicators such as confusion, a blank mind, and loss of control; and low anxiety by attitudinal indicators such as worry, expectations of difficulty, and lack of confidence.

2. Numeracy Skills of Fifth-Grade Students

Students' numeracy skills have three parts of indicators, according to (Han et al., 2017) Numeracy is the knowledge and skills to (a) use various kinds of numbers and symbols related to basic mathematics to solve practical problems in a variety of daily life contexts and (b) analyze information displayed in various forms (graphs, tables, charts, etc.) (c) and then use the interpretation of the results of the analysis to predict and make decisions.

Based on the results of the numeracy ability test, students in the low category were 22.22% or 6 students. Students with numeracy skills in this low category have difficulty in using various kinds of numbers to solve problems in everyday contexts, in this case most of them can only answer question number 20. Judging from how to analyze information, some of the students in this low category can only answer question number 8 regarding the average data displayed through bar charts. While seen from how to analyze, predict and make decisions, some of these students can only answer questions number 1 and 12.

Based on the test results of the numeracy skills of moderate category students as much as 66.67% or as many as 18 students. Students with numeracy skills in this moderate category are balanced in solving problems that are divided into these 3 indicators. Some students can solve problems using various kinds of numbers, some of them are also able to analyze information in various forms of tables, graphs and diagrams. They can also analyze, predict and make decisions in solving mathematical tests.

Based on the test results, the numeracy ability of high category students is 11.11% or as many as 3 students. Students with numeracy skills in this high category excel in completing mathematics tests with indicators of analyzing information in various forms (graphs, tables, diagrams, and so on).

3. The Correlation between Math Anxiety and Numeracy Skills of Fifth-Grade Students

Before conducting hypothesis testing, a prerequisite test or normality test is first carried out. The results of the prerequisite and hypothesis tests are as follows. The normality test for the math anxiety questionnaire obtained $T_{3count} > T_{table}$ (0.93> 0.92), meaning that the data obtained is normally distributed. For the normality test of the numeracy test, $T_{3hitung} > T_{tabel}$ (0.94 > 0.92) was also obtained, meaning that the data obtained was also normally distributed.

After conducting a normality test and knowing that both data are normally distributed, the next step taken by the researcher is to test the hypothesis. Based on the data analysis that has been done, about the relationship between math anxiety (X) and numeracy skills (Y), the correlation result of - 0.40 is in the medium category. The negative sign indicates that the two variables are opposite. Which means that the increase in variable X (Math anxiety) is always followed by a decrease in variable Y (Numeracy Ability) or vice versa. This is in line with the opinion of (Cavanagh & Sparrow, 2010a) "if anxiety levels are decreased, there will be improvements in cognitive, behavioral and attitudinal aspects of mathematics learning." which

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can be interpreted if anxiety levels decrease, there will be improvements in cognitive, behavioral and attitudinal aspects of mathematics learning.

And based on the results of the hypothesis test carried out, the t_{count} value = -2.17 and the t_{table} value = 2.06 were obtained. Because tcount> ttable // tcount < -table, so the decision is made that H_0 is rejected and H_1 is accepted. Thus the hypothesis shows that there is a significant negative relationship between math anxiety and students' numeracy skills. The results of the research that has been done contribute little about the relationship of math anxiety to numeracy skills. Where the contribution of the math anxiety variable to numeracy skills is 16% and 84% is determined by other variables.

The results of this study are in accordance with research conducted by Susanti H Mansari, there is a significant relationship between math anxiety and math learning outcomes. Furthermore, research also conducted by Devi Pratiwi has the same research direction, the results of the study are that there is a negative and significant effect on math anxiety on mathematical representation ability.

There is a relationship between math anxiety and student numeracy skills, therefore knowledge of student anxiety in mathematics is very important to know by mathematics teachers and prospective teachers in order to know better alternatives to deal with students so that they can achieve learning objectives. This also needs to be known by schools in general so that schools are able to deal with these problems properly. This can be done by improving the curriculum, providing adequate facilities and infrastructure and other things that can support progress in learning.

Conclusion

Based on the research conducted on "The Relationship between Mathematics Anxiety and Numeracy Skills of Grade V Students at 5 Elementary School Selong in the 2023/2024 Academic Year" it can be concluded that math anxiety has a relationship with students' numeracy skills. Math anxiety contributes 16% to numeracy skills and the remaining 84% is determined by other variables. This is evidenced by the results of data analysis and discussion that has been explained. Based on the results of the analysis seen from the hypothesis testing criteria, namely t_{count} (-2.17) < t_{table} (-2.06). This shows that the hypothesis H_0 is rejected and H_1 is accepted. So it is concluded that "there is a significant negative correlation between math anxiety level and students' numeracy skills".

References

Annisa, D, F., & Ifdil. (2016). Konsep Kecemasan (Anxiety) pada Lanjut Usia (Lansia). *Konselor*, *5*(2), 1–7. http://ejournal.unp.ac.id/index.php/konselor

Azwar, S. (2013). *Reliabilitas dan Validitas*. Pustaka Pelajar.

Azwar, S. (2022). *Penyusunan Skala Psikologi*. Pustaka Pelajar.

Cahyono, T. (2015). *Statistik Uji Normalitas*. Yayasan Sanitarian Banyumas (Yasamas).

Cavanagh, R., & Sparrow, L. (2010a). *Measuring mathematics anxiety: Paper 1-Developing a construct model*. R.Cavanagh@curtin.edu.au

Vol. 2, No 3: November 2024
E-ISSN: 2988-7798
pp. 177-186
Email:ije@skillerindonesia.com

Cavanagh, R., & Sparrow, L. (2010b). *Measuring mathematics anxiety: Paper 2-Constructing and validating the measure*. R.Cavanagh@curtin.edu.au

Dewayani, S., Retnaningdyah, P., Susanti, D., & Antoro, B. (2021). *Panduan Literasi & Numerisasi Di Sekolah*. https://repositori.kemdikbud.go.id/22599/1/Panduan_Penguatan_Literasi_dan_Numerasi_di_Sekolah_bf1426239f.pdf

Freedman, E. (2006). *Do You Have Math Anxiety? A Self Test*. *1*, 1–11.

Han, W., Susanto, D., Dewayani, S., Pandora, P., Hanifah, N., Miftahussururi., Nento, M. N., & Akbari, Q. S. (2017). Materi Pendukung Literasi Numerasi. *Kementrian Pendidikan Dan Kebudayaan, Tim GLN Kemendikbud.*, *8*(9), 1–58.

Kemendikbud. (2019). Pendidikan di Indonesia Belajar dari Hasil PISA 2018. *Pusat Penilaian Pendidikan Balitbang Kemendikbud*, *021*, 1–206.

Kemendikbudristek. (2024). *Data Pokok Pendidikan SDN 5 Selong*. 4 Juni. https://dapo.kemdikbud.go.id/sekolah/D8A9D66788CFF83A6A80

Kusumastuti, A., Khoiron, A, M., & Achmadi, T, A. (2020). *Metode Penelitian Kuantitatif* (1st ed.). Deepublish.

Mundir. (2012). *Statistik Pendidikan*. STAIN Jember Press. http://digilib.uinkhas.ac.id/1414/1/BUKU STATISTIK PENDIDIKAN.pdf

Muqorobin, & Triana, H. (2022). Validitas Instrumen Tingkat Kecemasan Siswa Terhadap Pembelajaran Matematika dalam Penelitian Eksperimen. *Jurnal Ilmu Sosial*, *6*. https://ejournal.mandalanursa.org/index.php/JISIP/article/download/3121/2436

OECD. (2023a). PISA 2022 Results (Volume I): The State of Learning and Equity in Education. In *OECD Publishing: Vol. I*. OECD Publishing. https://doi.org/10.31244/9783830998488

OECD. (2023b). PISA 2022 Results (Volume II): Learning During – and From – Disruption. In *OECD Publishing: Vol. II*. https://www.oecd-ilibrary.org/education/pisa-2022-results-volume-ii_a97db61c-en

Ristianti, D. H., & Fathurrohman, I. (2020). *Penilaian Konseling Kelompok* (Cetakan Pe). Deepublish.

Setiawati, H, H., & Syaf, A, H. (2018). Penerapan Model Mastery Learning Dalam Meningkatkan Pemahaman Matematik Siswa. *Al-Aulad: Journal of Islamic Primary Education*, *1*(2), 10–19. https://doi.org/10.15575/al-aulad.v1i2.3520

Sholichah, F, M., & Aini, A, N. (2022). Math Anxiety Siswa: Level dan Aspek Kecemasan. *Journal of Mathematics Learning Innovation (JMLI)*, *1*, 125–134. https://ejurnal.iainpare.ac.id/index.php/JMLIPARE/index

Sugiyono. (2008). *Metode Penelitian Pendidikan: (Pendekatan Kuantitatif, Kualitatif dan R&D* (6th ed.). Alfabeta.

Vol. 2, No 3: November 2024
E-ISSN: 2988-7798
pp. 177-186
Email:ije@skillerindonesia.com

Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (25th ed.). Alfabeta.

Yunarti, T., & Amanda, A. (2022). Pentingnya Kemampuan Numerasi Bagi Siswa. *Seminar Nasional Pembelajaran Matematika, Sains Dan Teknologi*, *2*(1), 44–48.

Zebua, T, G. (2022). *Menggagas Konsep Kecemasan Belajar Matematika*. Guapedia.