



## THE ROLE OF READING COMPREHENSION IN MATHEMATICS ACHIEVEMENT OF STUDENTS

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### ABSTRACT

The correlation of reading comprehension and mathematics achievement of students are significance, due to dominant students have difficulty in working on narrative or story questions of mathematics which is caused by their lack of reading comprehension ability, they are unable to comprehend what is known and what is asked from the text or questions. This study aims to analyze the role of reading comprehension in mathematics achievements. The participants of this study are ninety-six pupils enrolled in three senior high school mathematics and sciences classes in the XI grade. This study uses quantitative methods and uses 10 questions in each mathematics and reading assessment which will be analyze by using PISA Levels and SPPS. The findings of this research are the Top performance is obtained by the A class with an average of 2385, Average performance is B class with an average of 1875, and Low performance is C class with an averagae of 1400. Based on the findings, it shows that the class who has high performance on reading also has good performance on math, A class students has high ability in reading comprehension than other two classes due to most students comprehend with the english text because they are rich with vocabularies, and according to SPPS Statistic result, reading comprehension and mathematics achievement have positive correlation with .000 significance and  $>.610$  pearson correlation which shows that there is the correlation between reading comprehension and mathematics achievement.

**KEYWORDS:** Reading comprehension. Mathematics achievements, Math Performance, Reading Performance

### Abstrak

Korelasi antara kemampuan membaca pemahaman dan prestasi matematika siswa sangat penting, karena dominan siswa mengalami kesulitan dalam mengerjakan soal-soal matematika berbentuk narasi atau soal cerita yang disebabkan oleh kurangnya kemampuan membaca pemahaman, sehingga mereka tidak dapat memahami apa yang diketahui dan apa yang ditanyakan dari teks atau soal. Penelitian ini bertujuan untuk menganalisis peran pemahaman membaca dalam prestasi matematika. Partisipan dari penelitian ini adalah sembilan puluh enam siswa yang terdaftar di tiga kelas matematika dan ilmu pengetahuan alam SMA kelas XI. Penelitian ini menggunakan metode kuantitatif dan menggunakan 10 pertanyaan di setiap penilaian matematika dan membaca yang akan dianalisis dengan menggunakan Level PISA dan SPPS. Temuan dari penelitian ini adalah performa tertinggi diperoleh oleh kelas A dengan rata-rata 2385, performa sedang adalah kelas B dengan rata-rata 1875, dan performa rendah adalah kelas C dengan rata-rata 1400. Berdasarkan hasil temuan, menunjukkan bahwa kelas yang memiliki prestasi membaca yang tinggi juga memiliki prestasi matematika yang baik, siswa kelas A memiliki kemampuan yang tinggi dalam membaca pemahaman daripada dua kelas lainnya karena sebagian besar siswa memahami teks bahasa Inggris karena mereka kaya akan kosa kata, dan menurut hasil statistik SPPS, pemahaman membaca dan prestasi matematika memiliki korelasi positif dengan

signifikansi 0,000 dan korelasi pearson  $>.610$  yang menunjukkan bahwa ada korelasi antara pemahaman membaca dan prestasi matematika.

Kata kunci: Pemahaman membaca. Prestasi Matematika, Prestasi Matematika, Prestasi Membaca

## A. INTRODUCTION

Language skills are the abilities and aptitudes related for using a language effectively for communication. These skills are essential for both understanding and expressing ideas or information in spoken or written form. Linguistically, language skills consist of four primary skills, viz: Listening, Speaking, Reading, and Writing. These skills are interrelated language skills that divided to be two parts viz: receptive skill (listening and reading) and productive skill (speaking and writing). In this study, Reading will be the concern of the discussion. Therefore academically, without ignoring the importance of other skills, reading skill is receptive skill that plays an essential role because it helps the students or people obtain informations or messages that conveyed by the author through written and comprehending the meaning of the text. According to Smith and Robinson (1980:6), “reading is an active activity to comprehend the messages and informations that author want to convey”.

Reading has scanning and skimming as the type of reading. Scanning is reading quickly to get specific information of the content in the text, whereas skimming is reading quickly for getting general description about the content in the text. Furthermore, according to Broughton (1978:11), reading has two skill aspects, in the first place is mechanical skills which encompassing the recognition of letter, linguistic elements, spelling form, and others. In the second place is comprehension skill which encompasses the ability for understanding the meaning and the ideas. These aspects are the basic fund for readers to understand the idea or opinion that author wants to convey.

Reading comprehension is a crucial thing for the reader due to the existence of comprehension that shows the reader has been able for understanding or comprehending the information or messages that conveyed by the authors. General reading comprehension is the capacity to grasp and interpret written material, encompassing skills like comprehending the main point, recognizing important information, and understanding the overall message or intent of the text. This skill has a few of purposes, viz : (1) In the field of education, reading supports the formal education (Arthur W. Chickering and Zelda F. Gamson, 1989). For instance, students read textbook and academic papers for understanding various subjects. (2) In the field of research, reading helps for collecting sources or informations for research project and academic work (Maryanne Wolf, 2007). For instance, researchers need to read articles and primary sources to help them collect the data for supporting their research. (3) In the field of information, reading helps for obtaining information and knowledge (Donald W. Norman, 1988), through reading newspapers, magazines, books, and others. (4) In the field of entertainment, reading provides relaxation and pleasure (Mihaly Csikszentmihalyi, 1990). For instance, we are entertained by reading novels, poems, fictions, and others.

Reading comprehension is not only useful for linguistics, but also useful for mathematics. Mathematics is the hardest subject according to the students which need high precision, good understanding about mathematical concepts and formulas, logical and critical thinking and last but not least good comprehension, due to mathematics has questions in the form of story which need comprehension to solve the problem that exist in the story or narration of mathematics, therefore reading comprehension has big influence on mathematics. Lack of reading comprehension will give a big impact or negative effect on mathematics achievement (Crowe, 2005; Pany and McCoy, 1988; Shany and Biemiller, 1995; and Fuentes, 1998). The students who have good competencies in reading, which is measured by their proficiency on reading tests, are more likely to do well in another subjects, for instance math (Hyde,

2007; Carnine and Carnine, 2004). Mathematics scores were influenced by reading ability (Walker et al., 2008).

According to most math teachers who have been interviewed, the students dominant get low score in math story items compared to numerical items, due to they are unable to understand what is known from the story items and what is asked, it causes the students lack in comprehend and analyze the story items. From this condition could conclude that mathematics has correlation with reading comprehension or reading comprehension influences the mathematics achievement of the student. This condition invites the mathematics teacher to guide the students for enhancing their reading comprehension ability about mathematics text (Carter and Dean, (2006).

2. One day, mom told Raya to buy six sachets of coffee. Before Raya left, mom asked Raya how much is the price of six sachets of coffee. Raya remembered that two days ago, she bought two sachets of coffee and one bottle of mineral water for Rp13.000. Besides that, one week ago Raya bought three sachets of coffee and one bottle of mineral water for Rp18.000. What is the price of six sachets of coffee and what is the difference between the price of a sachet of coffee and a bottle of mineral water?

27.  $2x + y = 13.000$   
 $3x + y = 18.000$   
Sub  $S_1 - S_2$   
 $2x + y = 13.000$   
 $= (5.000)$   
 $3x + y = 18.000$   
 $\rightarrow 3x + y = 18.000$   
 $2x + y = 13.000$   
 $x = 5.000$   
 $x = 1 \text{ kopi}$   
 $y = 1 \text{ mineral}$   
Missunderstanding

According to the statement above, can conclude that reading comprehension skill can influence to solving mathematics story items ability of the students. As for related research such as: (1) Ayça AKIN, 2022, *Is Reading Comprehension Associated With Mathematics Skills: A Meta-analysis Research*, (2) Assoc. Prof. Dr. Sait Akbaşlı et.al, 2016, *The Affect Of Reading Comprehension On The Performance In Science And Mathematics*, (3) Luca B. et al., 2021, *The Relationship of Reading Abilities With the Underlying Cognitive Skills of Math: A Dimensional Approach*, (4) Linda Salihu et.al, 2018, *Children with learning difficulties in mathematics: Relating mathematics skills and reading comprehension*, (5) Anna L. Gomez et.al, 2020, *The undeniable relationship between reading comprehension and mathematics performance*, (6) V Virgana et.al, 2019, *The Influence of vocabulary mastery and reading comprehension towards performance of students in mathematics*. Previous study displayed varied findings on correlation between variables in reading and mathematics with the data which collected from random participant from several countries, schools, and grades, which is certainly different from this study, due to this study will conduct the assessment on three classes of Senior high school 18 Medan from the same grade and department with several questions which covered PISA levels proficiency, then analyze it by using PISA levels and SPSS for checking the correlation between reading comprehension and mathematics. This study also investigate what the difficulties in doing on math and reading assessment which influence students' achievement.

## B. LITERATURE REVIEW

Mathematics is the structures, arrangements, and relationships sciences that arise from early practices such as counting, measuring, and describing the shapes of objects which deals with quantitative calculation, logical reasoning and critical thinking, and the development of mathematics has involved increasing levels of idealization and abstraction of its subject materilas (Jeremy John Gray et al., 2023). Mathematics is and intricate and challenging subject which encourages the students to create a concept and solve the problem through their comprehension on the questions or text, due to it emphasizes to the one's ability to preceive, process, and organize information. Mathematics has two types of question forms, namely numerical question and narration or story question. Mathematical problems that are expressed or written in a series of sentences are called story questions (Winarni and Harmini, 2017, p. 122). Story question is be the concern in this study, due to it needs reading comprehension ability to solve the problem. Reading is one of crucial language skills alongside from the other three language skills. Reading is an activity or cognitive process that seeks to find kinds of information which contained in writing (Dalman, 2017). It is one of the way to get an information from people around us. The ability to read proficiently is a basic skill that influences the

learning experiences and school performance of students. The students who have competencies in reading, are bound to do well in different subjects, like math (Hyde, 2007). Some researchers stated that students' reading ability is correlated with mathematics (Ní Ríordáin & O'Donoghue, 2009; Reikerås, 2006). Reikerås (2006) pronounced that low execution in perusing somewhat disabled arithmetic advancement of the understudies. Walker, Zhang & Surber (2008) express that numerical statements intends to quantify higher mental capacities, for example, critical thinking and numerical thinking, are double layered on the grounds that they are estimated both ability to understand and math capacity. In the investigation of Walker et al., 2008, they expressed that understudies' accomplishments on science things were affected by their capability of understanding capacity.

*[Example]*

A baker will produce banana sponge cake and sponge roll using wheat flour in a certain amount. One pan of banana sponge cake requires 12 spoonfuls of flour and one pan of roll cake requires 6 spoonfuls of flour. There is 1 kg of flour available (equivalent to 100 spoons of flour). The cost of making one pan of banana sponge cake is Rp60.000 and the cost of making one pan of roll cake is Rp80.000. The available budget is Rp500.000. The mathematical model of the problem is ....

In this case, the question provides the information about the amount of the available flour and the flour is need, it also provide the cost to make both of cake. It needs reading comprehension ability to make the mathematical model through the information which is conveyed by the text. From the information which is gotten from the question, the cost is known or determined. So, the mathematical model uses  $\leq$  symbol, not  $\geq$  symbol due to the existence of maximum cost which make the budget limitation.

PISA (Program for International Student Assessment) is a large-scale (international) student assessment which is promoted by the Organization for Economic Cooperation and Development (OECD). PISA (Program for International Student Assessment) level refers to the level of student ability in reading, mathematics and science measured internationally. PISA results provide an overview of student skills in different countries to aid comparison and improvement of education systems. PISA levels contain six levels which different proficiency criteria in each levels. Andreas Schleicher (2019), Director of Education and Skills at the OECD, says that PISA levels are the most accurate indicator of the quality of education in a country. For checking a correlation, SPSS can be used. SPSS (Statistical Product and Service Solutions) is the software most often chosen and used to process and analyze quantitative data. According to an expert named Jonathan Sarwono (2006) SPSS is an application used to perform measurable computations by utilizing a PC program. The upside of SPSS is that clients can perform measurable estimations all the more rapidly from easy to complex ones.

Literature review shows that reading comprehension has a significant role in working on math story problems or questions. Good reading comprehension ability can help students understand the mathematical concepts contained in the problem and solve math problems effectively. There exists a relationship between reading comprehension ability and mathematics achievement.

### **C. METHODOLOGY**

This study uses quantitative methods due to this study uses correlation which identifies the relationship between reading ability and performance in solving on mathematical narrative problems. It also uses experiments for students by giving reading comprehension questions and mathematical narration questions. Therefore, this method is appropriate for use in this form of research which requires collecting and analyzing measurable data to understand a case, and produce acceptable generalizations (David R. Krathwohl, 1993). The statistical sample of this study included ninety-six students enrolled in three senior high school mathematics and sciences classes of Senior High School 18 Medan, who are at the pre-intermediate level and aged between 15 to 17 years old. Reading comprehension and narration assessment are provided to measure their comprehension to the text and information which is conveyed by the author through the text.

For the purpose of identifying students' level of proficiency, 10 items of reading comprehension questions were first given to students to measure their level of reading ability, and then 10 items of math narration questions with different level proficiency in once given assessment, to measure that reading comprehension is important in doing math problems. The students are given eighty minutes for solving the items or questions which is reading comprehension assessment is be the first section. The students are given fifteen to twenty minutes to do the first assessment. Then, after completing the first assessment, students will be directed to solve the math narration items or questions which are done with the remaining time available. If there are students who have difficulty in understanding the problems presented, students will be helped by explaining the question and trying to solve the problem. To measure students' proficiency, this study uses PISA Levels as a guide and to check the relation of reading comprehension and mathematics achievement, this study uses the chart analysis and SPSS statistics for checking the correlation of both variables.

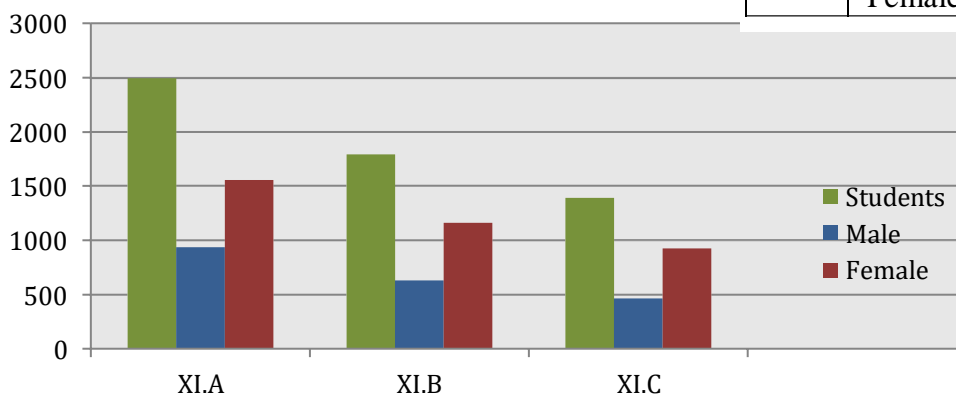
#### D. FINDINGS

In order to figure out or prove whether reading comprehension ability can influences students' performance in solving mathematical story problems or questions, the data will be displayed.

##### a. Students Performance in Mathematics

This section will compare three classes of eleven grade of Mathematics and Science department of Senior High School 18 Medan in doing on Mathematics assessment. Mathematics assessment consist of ten story questions and there are ninety-six samples who has solved the questions, the total score of this assesment will be displayed below.

Performance Levels						Class	Gender	Amount	Score
High Performance	Class	Average Performance	Class	Low Performance	Class	XI.A	Male	15	935
	XI.A		XI.B		Female		20	1555	
	Score		Score		Score	XI.B	Male	11	630
	2490		1790		1390		Female	22	1160
						XI.C	Male	11	465
							Female	17	925



The chart display that the high performance is obtained by XI.A class which consist of thirty-five students, with fifteen male students and twenty female students. The average score of this class is 71. Then, the average performance is XI.B class which consist of thirty-three students with eleven male students and twenty-two female students, the average score of this class is 54,2. The last is the low performance level, that is XI.C class which consist of twenty-eight students with eleven male students and twelve female students. The average score of this class is 49,6. As can see from the chart, there are significant difference from three classes and significant difference between the gender of the students in each class. The female students have better performance than the male students.

##### b. Students Performance in Reading Comprehension

This section will compare three classes of Eleven grade of Mathematics and Science department of Senior High School 18 Medan in doing on Reading assessment. Reading assessment consist of ten questions with a long text or paragraph to measure the readig abilty of the participants and there are ninety-six samples who has answered the questions, the total score of this assesment will be displayed below.

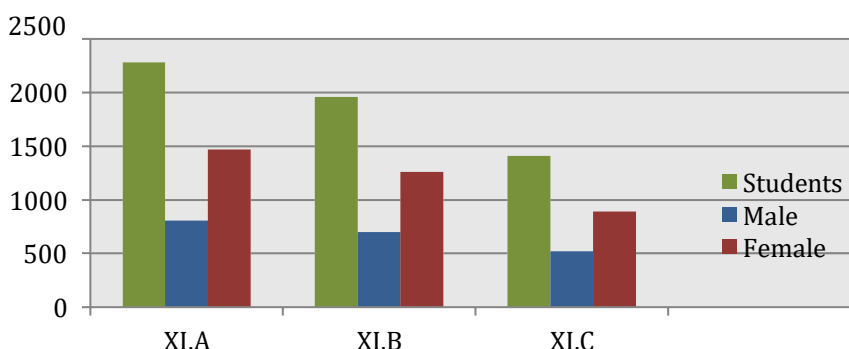
Performance Levels						Class	Gender	Amount	Score
High Performance	Class	Average Performance	Class	Low Performance	Class	XI.A	Male	15	810
	XI.A		XI.B		XI.C	XI.A	Female	20	1470
	Score		Score		Score	XI.B	Male	11	700
	2280		1960		1410	XI.B	Female	22	1260
					XI.C	Male	11	520	
						Female	17	890	

The chart display that the high performance is obtained by XI.A class which consist of thirty-five students, with fifteen male students and twenty female students. The average score of this class is 67,7. Then, the average performance is XI.B class which consist of thirty-three students with eleven male students and twenty-two female students, the average score of this class is 59,3. The last is the low performance level, that is XI.C class which consist of twenty-eight students with eleven male students and twelve female students. The average score of this class is 56,7. As can see from the chart, there are significant difference from three classes and significant difference between the gender of the students in each class. The female students have better performance than the male students.

c. *Students Proficiency Levels*

i. *Different levels of students proficiency in mathematics*

The tests tested use all levels in PISA of mathematical literacy questions (Rizki & Priatna, 2018) so the unwavering legitimacy completed, on they were as There are six numerical be visible from underneath.



quality and tests were not the grounds that per PISA norms. classes of capacities should the table



Levels	Description
6	Able to use logic in finding problem solving, making generalizations, formulating and summing up the answers.
5	Able for creating the models and solving the complex problems.
4	Able to make good models, choose and integrate with different representations, and can be related to real situations.
3	Able to use steps in solving problems and strategies well.
2	Able to comprehend problems and solve directly using existing formulas.
1	Able to solve problems that are routine in nature and contexts that are commonly used.

Based on the table above, it can be seen that PISA Mathematical ability consist of six levels. Level 1 and 2 is included in a gathering of inquiries with a lower scale that action regenerative skill and are arranged in light of the setting that is very famliar to understudies with basic numerical tasks. Level 3 and 4 is remembered for a gathering of medium scale which measure association capability and involve student interpretation due to the given situation is unfamiliar for the students. And the last one, level 5 and 6 is included in a group of questions with a high scale which measure reflection competence and involve high interpretation in a context which is unexpected by students (Maryanti, 2012). Table below displays the mathematical ability description about comprehension of mathematical concepts which is expected at each level of the size of numerical proficiency and the level of the understudies from three classes who are able to do the tasks in each levels.

In this study, Mathematics assessment is given by using traditional learning which use pen and paper for doing it. It has ten question which relate with PISA level categories, so it can conclude the precentage of students who are able to solving the problems in each level which has each difficulties.

The descriptions summary for the Six Level of Proficiency in Mathematics are as follows:

Class	Levels	Students ability to perform tasks at each level percentage	Students can typically do
XI.A	1	91,4%	Level 1, students able to respond the questions within familiar situations, provided all necessary information which available and the questions are straightforward. They can recognize information and follow explicit instructions to perform tasks.
	2	80%	
	3	85,7%	
	4	48,5%	Level 2, students can understand and identify situations in specific contexts, relying on direct inference. They possess the ability to apply basic algorithms, formulas, procedures, or conventions for solving problems with whole numbers. Additionally, they can make straightforward interpretations of outcomes.
	5	65,7%	
	6	14,2%	

XI.B	1	84,8%	Level 3, students able execute well-defined procedures, even those involving sequential decisions. Their interpretations are adept enough to form the foundation for creating a basic model or choosing and applying straightforward problem-solving strategies. Typically, students demonstrate proficiency in dealing with percentages, fractions, and decimal numbers, as well as understanding proportional relationships. Their solutions indicate that they have employed interpretation and reasoning skills actively.
	2	69,6%	
	3	54,5%	
	4	48,4%	Level 4, students excel in handling intricate, real-world situations that might include constraints or require making assumptions. They demonstrate proficiency in selecting and incorporating various representations, including symbolic ones, and can directly relate them to aspects of real-life situations. Students at this level leverage their skills effectively and exhibit insightful reasoning within dynamic contexts.
	5	27,2%	
	6	21,2%	
XI.C	1	75%	Level 5, students able proficiently create and manipulate models for complex scenarios, recognizing constraints and specifying assumptions. They possess the ability to choose, compare, and assess suitable problem-solving strategies for addressing the intricacies linked to these models. Students at this level initiate reflection on their work and demonstrate the capacity to articulate and convey their interpretations and reasoning effectively.
	2	67,8%	
	3	60,7%	
	4	14,2%	Level 6, students showcase advanced abilities by conceptualizing, generalizing, and applying information gained through the investigation and modeling of intricate problem scenarios. They adeptly utilize their knowledge, demonstrating advanced mathematical thinking and reasoning. These students can apply their insights, comprehension, and mastery of symbolic and formal mathematical operations to devise innovative approaches and strategies for addressing novel situations.
	5	0%	
	6	7,1%	

#### 4.3.2 Different levels of students proficiency in Reading

The tests is tested by using PISA Level of reading comprehension to obtain unwavering quality and legitimacy tests were not done, in light of the fact that they were as per PISA principles. The classifications of perusing capacities can be seen from the table underneath.

Levels	Description
5	This level measures students' ability to relate the text with their knowledge and experience. They are asked to answer the questions which ask for the relationship between the text and their own knowledge or experience.
4	This level measures students' ability to assess the text. They are asked to answer the questions which ask about the quality or value of the text.
3	This level measures students' ability for interpreting the text. They are asked to answer the questions which ask for the meaning or intent of the text.
2	This level measures students' ability to comprehend the relationship between parts of the text. They are asked to answer the questions which ask about the relationship between concepts, ideas, or opinions in the text.



1 This level measures students' ability for finding relevant information in the text. They are asked to answer the questions which ask for specific information contained in the text.

Levels	Students ability to perform tasks at each level percentage	Students can typically do
1	58,2%	This level necessitates the reader to pinpoint explicitly stated information, comprehend the primary theme or purpose of the author in a text on a familiar subject, or establish straightforward connections between the text and everyday common knowledge.

The reading assessment also uses PISA levels in measuring the ability of reading, actually there are seven levels of reading ability, but in this

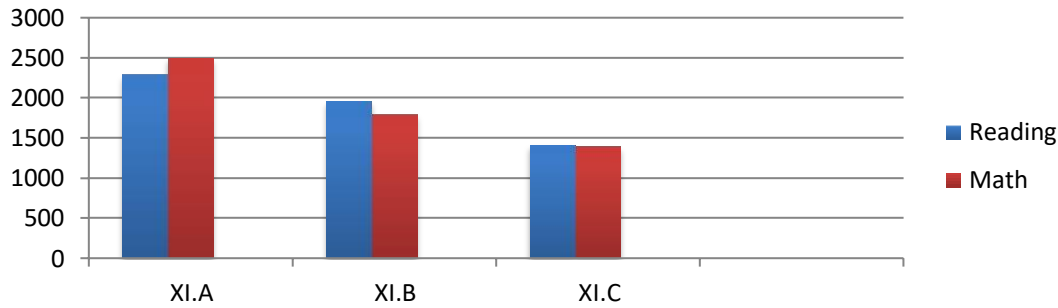
study only uses 5 levels of PISA in reading ability due to the questions in the assessment only covered the 5 categories, it does not until covered the 6 level which is the highest level. In reading assessment, it uses modern learning which use the technology, which is mobile phone to do the assessment through Google Form. So, the measurements of this assessment will not provided with each class like the mathematics assessment, but it will displayed the percentage of all total students (96 students) who have followed the assessment. The details about the nature of reading skill of each levels will be displayed by the table below.

2	88,8%	This level the reader is tasked with locating information, which might involve making inferences and meeting specific criteria. Additionally, there are tasks involving identifying the main ideas, comprehending relationships, and interpreting meaning in a confined section of text, especially when information is not overt and the reader needs to make basic inferences.
3	50%	This level the reader is expected to identify and acknowledge connections among multiple pieces of information, meeting various conditions. Interpretive tasks involve integrating several elements of a text to discern the main idea, comprehend relationships, or interpret the meaning of a word or phrase.
4	50%	This level entails retrieving information, with readers tasked to locate and organize embedded pieces of information. Certain tasks involve interpreting the nuanced language in a passage while considering the text as a whole. Reflective tasks at this level require readers to employ formal or general knowledge to hypothesize or critically evaluate a text.
5	58,2%	This level information retrieval tasks demand that readers locate and organize numerous pieces of deeply embedded information, discerning the relevance of information in the text. The assessment measures students' capacity to connect the text with their knowledge and experiences, prompting them to respond to questions that inquire about the relationship between the text and their personal knowledge or experience.
6	-	-

#### 4.4 Reading Comprehension Ability With Mathematics Achievement Correlation

This study proves that mathematics achievements is influenced by reading ability which able to receive the information, comprehend the meaning and solve the problems in mathematics story questions. As can be viewed from the table below.

Class	Performance Levels	Reading Score	
		Reading	Math
XI.A	Top Performance	2280	2490
XI.B	Average Performance	1960	1790
XI.C	Low Performance	1410	1390



Based on the chart above, it can be seen that the class who has reading high performance, also has good math performance. Mathematics is not only consist of numerical question, but it also contains story questions which need comprehension to solve the problems. It causes reading ability is really needed to solve the problems that is contained in story question and it can not separated because these both things is related. It can also sum up through SPSS Statistics which measure the correlation between reading comprehension and mathematics.

### Correlations of Reading Comprehension With Mathematics Achievements of XI.A Class

		Reading Comprehension	Mathematics Achievements
Reading Comprehension	Pearson Correlation	1	.865**
	Sig. (2-tailed)		.000
	N	35	35
Mathematics Achievements	Pearson Correlation	.865**	1
	Sig. (2-tailed)	.000	
	N	35	35

Note :

1. The fundamental to take the decision
  - If Sig is less than 0.05, then it is correlated.
  - If Sig is more than 0.05, then it is not correlated.
2. Degree of relationship guidelines
  - If the variable pearson correlation score is 0.00 to 0.20 = it is not correlated.
  - If the variable pearson correlation score is 0.21 to 0.40 = it is weak correlation.
  - If the variable pearson correlation score is 0.41 to 0.60 = it is medium correlation.
  - If the variable pearson correlation score is 0.61 to 0.80 = it is strong correlation.
  - If the variable pearson correlation score is 0.81 to 1.00 = it is perfect correlation.

From the table above, it conveys some information that the significance of reading and math is 0.000 and the pearson correlation score is 0.865, it can conclude that reading comprehension and mathematics achievements is correlated with a perfect degree of relationship and have positive form which means the higher the reading comprehension ability, the higher the math achievement.

**Correlations of Reading Comprehension With Mathematics Achievements of XI.B Class**

		Reading Comprehension	Mathematics Achievements
Reading Comprehension	Pearson Correlation	1	.792**
	Sig. (2-tailed)		.000
	N	33	33
Mathematics Achievements	Pearson Correlation	.792**	1
	Sig. (2-tailed)	.000	
	N	33	33

From the table above, it conveys some information that the significance of reading and math is 0.000 and the pearson correlation score is 0.792, it can conclude that reading comprehension and mathematics achievements is correlated with a strong degree of relationship and have positive form which means the higher the reading comprehension ability, the higher the math achievement.

**Correlations of Reading Comprehension With Mathematics Achievements of XI.C Class**

		Reading Comprehension	Mathematics Achievements
Reading Comprehension	Pearson Correlation	1	.925**
	Sig. (2-tailed)		.000
	N	36	36
Mathematics Achievements	Pearson Correlation	.925**	1
	Sig. (2-tailed)	.000	
	N	36	36

From the table above, it conveys some information that the significance of reading and math is 0.000 and the pearson correlation score is 0.925, it can conclude that reading comprehension and mathematics achievements is correlated with a perfect degree of relationship and have positive form which means the higher the reading comprehension ability, the higher the math achievement.

**E. DISCUSSION**

The students who have good competencies in reading, which is measured by their proficiency on reading tests, are more likely to do well in another subjects, for instance math (Hyde, 2007; Carnine and Carnine, 2004). Based on the theory above, the findings of this study can prove that is absolutely true, this study elaborate the correlation between reading comprehension and mathematics achievements which can be seen from the chart which is provided or correlation table which conclude that the higher the reading comprehension, the higher the athematics achievement. According to the findings, the lowest percentage of mathematics score (PISA levels) which obtained by the students is level 6, due to most students unable to conceptualize, generalize, and utilize the information in the text based on investigating and modeling complex problem situations, and it also unable in advanced mathematical thinking and reasoning as they can

apply their insights and comprehension, along with mastery of symbolic and formal mathematical operations. While the lowest percentage of reading score (PISA levels) which is obtained by the students is level 3 and 4, due to the students are unable to find and recognize the connections between several pieces of information which must meet multiple conditions that require the them to identify the main idea, comprehend the correlation and interpret the meaning of the word or phrases, and they unable to use formal or general insight to hypothesize or critically evaluate a text. On the other hand, the students' difficulties while doing these assessments are the lack of vocabularies, misunderstanding the question meaning and unable to create a concept or ignorance of formula. After giving the assessments, the students are interviewed to know what is their difficulties while doing the assessments, so that the causes is known. To enhance students' math skills, mathematics teachers should provide opportunities for students for improving their reading comprehension skills, (Bae et al., 2015). The top performance is obtained by A class due to this class contain most students which join in English club which is influenced students' comprehension in understanding an english text because they are rich with vocabularies. The average performance is B class which contains a quarter off all students which join in English club and the low performance is C class which contains only two students who join in English club and several students who interest in english and leran it by themselves. Female students dominant join in English club, it causes female students have better performance than male students.

For suming up, all of these data and analysis obviously inform that reading has a significant influence on quantitative aptitude intelligence, for instance math, due to mathematics has a question in the form of story which needs reading comprehension ability to receive the information, comprehend the question intent, and solve the problems which is contained in the text. There are few of causes why did the students difficult on comprehend the question intent, because of their lack of vocabularies, low comprehension of what the text is asking, misunderstanding with the question intent and lack of knowledge of mathematical formulas and concepts. To deal with this situation, arithmetic educators can coordinate adding understanding abilities to their math educating by asking understudies read the procedural and applied learning in science, regular jargon, and math jargon in the learning climate text resoundingly, assisting them with interpreting the issue circumstance in light of the information and asking what is needed in the issue, assisting them with utilizing their deciphering abilities, especially in muddled issues, causing them to investigate new words they utilize day to day and numerical jargon (Carter & Dean, 2006).

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