



## **Analysis of Numerical Literacy Ability of Junior High School Students viewed from Gender Difference using Minimum Competency Assessment**

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**Abstract:** This study aims to describe the numeracy literacy skills of junior high school students in terms of gender. Data collection techniques in the form of test questions and interviews. The results of this study indicate that male students are able to use knowledge to solve problems, interpret problems and use, write down steps and use strategies in solving problems, use models and explanations in solving problems partially correctly, models to solve situations that complex and complicated questions partially correct, and have not been able to use reasoning in solving problems. While the numeracy literacy skills of female students are able to use knowledge to solve problems, interpret problems and use formulas partially correctly, write down steps and use strategies to solve problems partially correctly, models and explanations in solving problems partially correctly, models to solve complex situations and complicated problems partially correctly, and use reasoning in solving problems partially correctly.

**Keywords:** numerical literacy, gender, minimum competency assessment.

**Abstrak:** Penelitian ini bertujuan untuk mendeskripsikan kemampuan literasi numerasi siswa SMP ditinjau dari gender. Teknik pengumpulan data berupa tes soal dan wawancara. Hasil dari penelitian ini menunjukkan bahwa siswa laki-laki mampu menggunakan pengetahuan untuk menyelesaikan soal, menginterpretasikan masalah dan menggunakan, menuliskan langkah-langkah dan menggunakan strategi dalam menyelesaikan soal, menggunakan model dan penjelasan dalam menyelesaikan soal dengan sebagian benar, menggunakan model untuk menyelesaikan situasi yang kompleks dan soal yang rumit dengan sebagian benar, dan belum dapat menggunakan penalaran dalam menyelesaikan soal. Sedangkan kemampuan literasi numerasi siswa perempuan mampu menggunakan pengetahuan untuk menyelesaikan soal, menginterpretasikan masalah dan menggunakan rumus dengan sebagian benar, menuliskan langkah-langkah dan menggunakan strategi dalam menyelesaikan soal dengan sebagian benar, menggunakan model dan penjelasan dalam menyelesaikan soal dengan sebagian benar, dan menggunakan model untuk menyelesaikan situasi yang kompleks dan soal yang rumit dengan sebagian benar, dan menggunakan penalaran dalam menyelesaikan soal dengan sebagian benar.

**Kata kunci:** literasi numerasi, gender, asesmen kompetensi minimum.

### ▪ INTRODUCTION

21st-century education is an education that includes knowledge, skills, attitudes, and mastery of technology. 21st-century education is projected on three factors, namely character, competence or skill known as 4C, and literacy. collaboration (Collaboration), and critical thinking and problem solving (Critical Thinking and Problem Solving) (Aji, 2019). According to (Sugiyarti et al., 2018), the inclusion of the 4C concept into the 2013 curriculum learning has a significant impact on the ability of the nation's successors to face the challenges of twenty-first century life. All 21st century learning, including mathematics learning, is used to train students' skills. Minimum Competency

Assessment is essentially a process of collecting data on the progress of learning outcomes on students' knowledge, attitudes, and skills in solving problems using the lowest standards (Andikayana et al, 2021). In line with (Andiani et al., 2020) argues that the Minimum Competency Assessment implemented by the government is an effort to prepare students to have various skills including critical thinking and problem solving skills (Critical Thinking and Problem Solving), Creativity (Creativity), communication skills (Communication Skills). ) and skills to work together (Ability to Work Collaboratively).

This is in line with what was conveyed by the Indonesian Minister of Education that the Independent Learning program does not use the National Examination because it is not ideal for measuring student learning achievement. So the National Examination was changed to the National Assessment. National Assessment needs to be carried out to improve the quality and quality of education. One of the National Assessments is the Minimum Competency Assessment. Minimum Competency Assessment is an assessment of the fundamental competencies needed by all students to be able to develop self-capacity and participate positively in society and the updates made by the government so that students are accustomed to thinking critically in various contexts in daily life and avoid feeling tense in doing exam questions that only contain learning content (Ayuningtyas & Sukriyah, 2020; Harfiyani & D I, 2018).

Minimum Competency Assessment is implemented to obtain information to improve the quality of learning and student learning outcomes. The results of this assessment are to provide information about the level of student ability that will be used by the teacher in designing learning using innovative, effective, and quality learning strategies according to the level of student learning outcomes. The statement agrees with (Nehru, 2019) that the implementation of Minimum Competency Assessment makes teachers have to be more creative in compiling assessment instruments for students, indirectly teachers who teach using conventional models must be replaced with innovative and creative learning models. The Minimum Competency Assessment question instrument includes content, context, and cognitive processes (Kemendikbud, 2020). Literacy and Minimum Competency Assessment are related because literacy is a student's ability to be measured in the Minimum Competency Assessment, namely reading literacy and numeracy literacy. This is in line with the (Cahyana, 2020) that the main focus of the Minimum Competency Assessment is the fulfillment of student's reading literacy and numeracy literacy skills.

(Nurfatanah, Rusmono, 2018) also explained that problem solving as the first step for students to develop ideas in building new knowledge and developing mathematical skills is the student's first step in solving problems. One of the skills that must be mastered by students when learning mathematics is problem solving. Agree with (Ulya & Kartono, 2014) that problem solving cannot be separated from learning mathematics. In line with (Hidayat & Sariningsih, 2018) suggesting that problem solving is the heart of fundamental abilities in learning mathematics. Mathematical problem solving skills have a significant impact on everyday problems. One of the efforts to train students in solving problems is Polya's theory (in Ninik, Hobri, & Suharto, 2014). Lamada et al., (2019) stated that literacy is very important to pay attention to because the initial ability that every individual must have to live life in the future is literacy. Literacy is not only the ability to read but also the ability to analyze a reading and understand concepts.

While numeration is the ability to analyze using numbers, symbols, graphs, and others and apply mathematical concepts in everyday life. This agrees with Alberta (2018) that numeracy is the ability, confidence, and willingness to engage with quantitative information to make inferences from information in all aspects of daily life. In simple terms, numeracy can be defined as a student's ability to apply mathematical concepts in everyday life.

Numerical literacy is the ability that students have in developing knowledge and skills using various symbols, graphs, and charts in solving problems and analyzing using various forms of mathematical models. This statement is in line with (Kemendikbud, 2017) stating that numeracy literacy is knowledge to use various kinds of numbers, symbols, charts, and graphs related to basic mathematics to solve practical problems in everyday life and then analyze the information presented in various forms of mathematical models. According to (Tyas and Pangesti, 2018) numeracy literacy skills are different from the ability to understand mathematical material. According to (Rohim, 2021) states that numeracy literacy skills are very important because understanding mathematics subject matter is not enough to solve problems in everyday life. (Ekowati et al., 2019) stated that numeracy literacy is a person's skill in using reasoning. The main purpose of numeracy literacy is that students are able to formulate and apply mathematics in various contexts, and use mathematics as a tool to describe and explain facts in the real world (Putra, 2016) also states that numeracy literacy is very important because it can help a person understand the role and function mathematics in everyday life.

The quality of education will not increase and will not develop if there is no continuous improvement in numeracy literacy. PISA is a world-class learning assessment program conducted every three years to test the academic abilities of 15-year-old students. Supported by the results of the PISA study, students' numeracy skills in Indonesia are still relatively low, from 79 countries that took the test, Indonesian students were ranked 72. The test results showed that the average score of students was 371 in reading, 379 in mathematics, and science 396. This score is below the average of 79 PISA participating countries, namely 487 for reading ability, and 489 for math and science ability (OECD, 2017). In addition to PISA, the results of research conducted by Lamada et al (2019) showed that only 19, 3% of students were able to solve numeracy literacy questions, and the rest were in low and medium abilities. This shows that numeracy literacy skills in Indonesia are still low and must be improved to improve the quality of education and competitiveness with other countries.

One of the influencing factors in the achievement of students' numeracy literacy is gender. To improve students' numeracy literacy, there must be student motivation for both male and female students. Gender differences cause physiological differences and affect psychological differences in learning, so learning mathematics is of course also different. As research conducted by Zubaidah Amir (2013) concluded that male and female students have differences that lie in how male and female students solve math problems. According to (Nurfauziah & Fitriani, 2019), male and female students use different strategies to solve math problems, including mathematical abstraction. And also Rusmining (2017) concluded that reasoning ability is the most prominent ability in numeracy literacy. Research conducted (by Rosito, 2018) states that male students in learning mathematics have a higher motivation than female students. According (to Nur

& Pabolo, 2018) revealed that when faced with problems in the problem-solving category, male and female students had different problem-solving tendencies. The cause of the differences between male students and female students is in mindset, emotions, behavior, and intelligence.

Based on the explanation of the theory and opinion above, the researcher conducted a study with the title "Analysis of Numerical Literacy Ability of Junior High School Students viewed from Gender Difference using Minimum Competency Assessment". The purpose of this study was to determine the numeracy literacy ability of male and female students of SMPN 1 Semanding through Minimum Competency Assessment questions.

## ▪ **METHOD**

### **Participants**

The type and approach of this research is descriptive qualitative research. The subjects of this study were students of class VIII-D SMPN 1 Semanding. The data collection technique used is a numerical literacy test through Minimum Competency Assessment questions (10 essay questions) on the material of opportunity and interview tests.. The number of male students is 13 students while the number of female students is 15 students who take the Minimum Competency Assessment test. Having obtained the results of the study showed that from 13 male students that 4 students were in the high category, 8 students were in the medium category and 1 student was in a low category. Of the 15 female students, it showed that 10 students were in the high category, 3 students were in the medium category and 2 students were in a low category. By using interpretation criteria with high, medium and low categories (Khoirudin, 2017) the classification of students' numerical literacy ability levels is classified into 3 categories, namely, high, medium and low. It is included in the high category if the student's score reaches a value of 71 to 100. Medium category if the student's score reaches a value of 41 to 71. Meanwhile, it is included in the low category if the student's score is less than 41. The final score of the student is in accordance with the guidelines for scoring numeracy literacy skills adapted from literacy skills numeration based on PISA.

Then choose 1 student from each level, both female and male students, so 6 students are collected to be research subjects consisting of 2 high categories (1 male and 1 female), and 2 medium categories (1 male). Male and 1 female and 2 low categories (1 male and 1 female). When each category has more than one student, it is taken on the advice and consideration of Mrs. Wahyu Sri Sulistyorini as a teacher in mathematics because she knows the ability of the student. To maintain the confidentiality of the data, the data subject uses initials. 6 research subjects will be analyzed based on 3 different categories. High category with FI and DLR research subjects, a medium category with LAS and TVAM research subjects, and a low category with MDM and NS research subjects.

### **Research Design and Procedures**

#### *Planning stage*

At this stage, the activities carried out are: Prepare a permit for observation and research, then conduct a survey to the school and make an agreement with the school where the research is carried out and the teacher in the field of mathematics, including

the time and class used for research, designing research instruments which include tests of students' problem-solving abilities in solving Minimum Competency Assessment questions and interview assignments, carry out instrument validation, and analyzing the results of the validation of the research instrument and then revising the instrument.

#### *Implementation stage*

At this stage, the activities carried out are: determining the research subject, the researcher chooses the research subject in class VIII-D, material opportunities and according to the subjects taught in class VIII., giving a test of the ability to solve Minimum Competency Assessment problems with opportunity material to 28 students, 6 students will be selected consisting of 3 boys and 3 girls, namely 2 high categories (male and female), 2 medium categories (male and female). ), and 2 low categories (male and female), scoring results from the problem-solving test to solve problems on the Minimum Competency Assessment questions using numeric literacy scoring based on PISA by working on the questions using the Polya step, and too collect data as a complement, the researcher will conduct interviews with 6 selected subjects. Observations were carried out on January 25, 2022, giving test questions on May 14, 2022, and conducting interviews on May 21, 2022.

#### *Analysis stage*

At this stage, the activities carried out are: analyze student work and interview results, describe the results of the data analysis of the potential picture of students according to gender which is associated with numeracy literacy in the form of questions in the form of Minimum Competency Assessment, and conclusion

### **Instruments**

#### *Numerical literacy test*

The numeracy literacy test instrument in this study was used to determine the category of equal level of student ability to be taken as research subjects in terms of gender differences. This instrument is in the form of Minimum Competency Assessment questions. In this instrument, the researcher uses a matter of opportunity. Before the test instrument is given to students, the instrument is validated by the validator to find out whether the test is suitable for use or not. After being validated, the instrument was improved according to the suggestions given by the validator so that the instrument was suitable for use. The validator in this instrument consists of two mathematics teachers at SMPN 1 Semanding, namely the VIII grade mathematics teacher and the IX grade mathematics teacher. This written test instrument in the validation process by the first validator, was declared valid so that the questions were used without revision with comments that the questions made were in accordance with the opportunity material and contained the context of the Minimum Competency Assessment numerical literacy. In the validation process by the second validator, it was declared valid so that the questions were used without revision with comments that it was good and in accordance with the material to be taught to students.

#### *Interview guide*

The interview guide is used as a reference so that in conducting the interview it remains focused on the problem to be researched and carried out after the problem

solving task has been corrected. The interview guide contains questions to be asked about the problems to be studied. This interview guide contains questions about students' numeracy literacy skills through Minimum Competency Assessment questions. The interview guide was also validated by 2 validators of the numeracy literacy test and was declared valid and the questions could be used without revision.

#### *Data Analysis*

Analyzing the results of the Minimum Competency Assessment test questions with alternative answers that have been made by researchers, grouping the answers to the Minimum Competency Assessment test results according to the indicators and criteria for assessing numeracy literacy abilities, and analysis of interview results. On the analysis of interview results the analysis of interview data used in this study consisted of 3 stages, namely:

#### *Data Reduction*

In this study, data reduction was carried out by sorting out interview data based on data related to students' numeracy literacy skills. Data reduction was carried out after understanding and reviewing the results of the interviews. The results of the interviews are stated in writing in the following manner: transcribing the interview results by looking at the written data of the researcher when conducting interviews with each subject, provide a code on the transcript of the interview subject. Coding is used to facilitate researchers in adjusting the data in the framework of the discussion of research results, and checking the data by re-matching the transcript of the interview results and the written data (notes) of the researcher during the interview to minimize writing errors.

#### *Data Presentation*

At this stage, the researcher presents data based on data reduction in the following way: presenting transcripts of interviews with research subjects, describe the data according to the numeracy literacy ability indicators listed analyzing data to examine and describe the numeracy literacy skills of male and female students through the Minimum Competency Assessment questions, and triangulate sources to find out the validity of the data.

#### *Drawing Conclusion*

Conclusions were drawn based on data that had been collected through Minimum Competency Assessment test questions and interviews. After being analyzed, numeracy literacy skills through Minimum Competency Assessment questions are viewed from gender differences according to the indicator assessment criteria

### ▪ **RESULT AND DISSCUSSION**

The results of research findings in class VIII-D are based on the results of a written test with opportunity material in the form of Minimum Competency Assessment questions consisting of 10 description questions that have been carried out resulting in 6 research subjects consisting of 2 high categories, 2 medium categories and 2 low categories where each category consists of 1 male and 1 female and also reinforced by interviews from research subjects 1 to research subjects 6 to measure students'

numeracy literacy skills which were then scored using numeracy literacy scoring guidelines.

### **Junior High School Students' Numerical Literacy Ability Through Minimum Competency Assessment Questions Based on Male Gender.**

#### *Research Subject 1 (FI) High Category*

In indicators using knowledge and steps to understand the problem, research subject 1 (FI) was able to answer correctly by answering directly after reading the question and using his knowledge from observing the number diagram by writing down the information obtained from the diagram. In the indicator of interpreting the problem and the steps for compiling a solution, research subject 1 (FI) solves the problem, namely the operation of subtraction and simplifying in fractions to get the opportunity indicated by the arrow and the answer written by the subject is correct. In Indicators of carrying out procedures well and steps for compiling a solution, research subject 1 (FI) observes the diagram presented and relates it to the problem and arranges what is known from the problem, and describes it into a mathematical model that is comparing the probability of women aged 60 years to 79 years being predictable. Infected with covid-19 and all ages women who are suspected of being infected and the answer is correct. In the indicators of working with the model effectively and the steps for implementing the completion plan, research subject 1 (FI) is at the step of compiling a solution by describing it into a mathematical model but only on 1 statement of the 4 statements presented so that the answer is partially correct. In the indicators of working with models in complex problems and steps to implement the completion plan, research subject 1 (FI) can work with models in complex situations and solve complex problems and can carry out the completion plan properly so that the answer is correct. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 1 (FI) has stated that the statement is true or false and has used a mathematical model but the answer is not correct but has used reasoning in solving it.

#### *Research Subject 2 (LAS) Medium Category*

In indicators using knowledge and steps to understand the problem, research subject 2 (LAS) answered directly after reading the questions and used his knowledge from observing the number diagram by writing down the information obtained from the diagram and the correct answer. In the indicator of interpreting the problem and the steps for compiling the solution, research subject 2 (LAS) wrote the formula for the operation of subtraction in fractions with the correct answer. On indicators of carrying out procedures well and steps for compiling solutions, research subject 2 (LAS) observes the diagrams presented and relates them to the questions and compiles what is known from the problem, and describes it into a mathematical model that is comparing the probability of women aged 60 years to 79 years being predictable. Infected with covid-19 and all ages women who are suspected of being infected and the answer is correct. In the indicators of working with the model effectively and the steps for implementing the completion plan, research subject 2 (LAS) has not correctly worked with the model effectively, has not been correct in selecting and integrating different representations, then connected in daily life and steps to implement the plan. In the

indicator of working with models in complex problems and steps to implement the completion plan, research subject 2 (LAS) has used mathematical models to solve questions number 6 and 8 but the model chosen is not clear and wrong and the answer is also wrong. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 2 (LAS) was not answered by the subject so they could not use steps to re-examine the solutions obtained and solve mathematical problems using reasoning, making generalizations, formulating and communicating the results.

#### *Research Subject 3 (MDM) Low Category*

In indicators of using knowledge and steps to understand the problem, research subject 3 (MDM) answered directly after reading the questions and used his knowledge from observing diagrams and correct answers. In the indicator of interpreting the problem and the steps for compiling a solution, research subject 3 (MDM) writes the formula for the subtraction operation in fractions to get the probability indicated by the arrow and the correct answer. On indicators of carrying out procedures well and steps for compiling solutions, research subject 3 (MDM) observes the diagrams presented and relates them to the questions and compiles what is known from the problem, and describes it into a mathematical model that is comparing the probability of women aged 60 years to 79 years being predictable infected with covid-19 and all ages of women who are suspected of being infected and the answer is correct. On the indicators of working with the model effectively and the steps for implementing the completion plan, research subject 3 (MDM) did not answer so that they could not work with the model effectively, could select and integrate different representations, then linked them in daily life and the steps for implementing the completion plan. In the indicators of working with models in complex problems and steps to implement the completion plan, research subject 3 (MDM) did not answer so that they could not use the model in complex situations and solve complex problems. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 3 (MDM) did not answer so they could not solve mathematical problems using reasoning, make generalizations, formulate and communicate the findings and steps to re-examine the solutions obtained.

Based on the description and analysis above, it shows that male students are by the first indicator, namely using the knowledge and steps to understand the problem correctly, according to the second indicator, namely interpreting the problem and preparing the solution correctly, and according to the third indicator, namely carrying out procedures and steps partially correct solutions. Male students according to the fourth indicator are working on the model effectively and the steps for implementing the completion plan are partially correct, on the fifth indicator is working with the model in complex problems and the steps for implementing the completion plan are partially correct. And also male students have not been able or have not been by the sixth indicator, namely solving mathematical problems using reasoning and steps to re-examine the solutions obtained.



### **Junior High School Students' Numerical Literacy Ability Through Minimum Competency Assessment Questions Based on Female Gender.**

#### *Research Subject 4 (DLR) High Category*

On indicators using knowledge and steps to understand the problem, research subject 4 (DLR) answered directly after reading the questions and used his knowledge from observing diagrams and correct answers. In the indicator of interpreting the problem and the steps for compiling a solution, research subject 4 (DLR) writes the formula for the subtraction operation in fractions for the probability indicated by the arrow and the correct answer. On indicators of carrying out procedures well and steps for compiling solutions, research subject 4 (DLR) observes the diagrams presented and relates them to the questions and compiles what is known from the problem, and describes it into a mathematical model that is comparing the probability of women aged 60 years to 79 years being predictable. Infected with covid-19 and all ages women who are suspected of being infected and the answer is correct. In the indicators of working with the model effectively and the steps for implementing the completion plan, research subject 4 (DLR) is partially correct in working with the model effectively, can select and integrate different representations, then relate them to daily life and the steps to implement the completion plan. In the indicators of working with models in complex problems and steps to implement the completion plan, research subject 4 (DLR) implements the completion plan by using the probability formula and answering correctly. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 4 (DLR) answered all statements but only one was correct so research 4 (DLR) had not fully been able to solve mathematical problems using reasoning, making generalizations, formulating and communicating findings.

#### *Research Subject 5 (TVAM) Medium Category*

In indicators of using knowledge and steps to understand the problem, research subject 5 (TVAM) answered directly after reading the questions and used his knowledge from observing diagrams and correct answers. In the indicator of interpreting the problem and the steps for compiling a solution, research subject 5 (TVAM) writes the formula for the subtraction operation in fractions to get the opportunity indicated by the arrow, namely determining all parts of the wheel and then subtracting all known parts of the wheel and the correct answer. In carrying out the procedure properly and the steps for compiling a solution, research subject 5 (TVAM) is partly correct in using the procedure properly and choosing a strategy in solving the problem on the question and has not been able to step in preparing a solution. In the indicators of working with the model effectively and the steps for carrying out the completion plan, research subject 5 (TVAM) was not answered by the subject so they could not use the steps to implement the completion plan and work with the model effectively, could select and integrate different representations, then be connected in life. In the indicators of working with models in complex problems and steps to implement the completion plan, research subject 5 (TVAM) has not correctly used the model in complex situations and solved complex problems. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 5 (TVAM) was not answered by the subject so they could not re-examine the solutions obtained and could

not solve mathematical problems using reasoning, generalizing, formulating, and communicating the findings.

#### *Research Subject 6 (TVAM) Low Category*

In indicators of using knowledge and steps to understand the problem, research subject 6 (NS) answered directly after reading the questions and used his knowledge from observing diagrams and correct answers. In the indicator of interpreting the problem and the steps for compiling the solution, research subject 6 (NS) has not been able to interpret the problem and its solution using the formula by the numeracy literacy ability of the second indicator and the steps for compiling a solution. On the indicators of carrying out the procedure well and the steps for compiling a solution, research subject 6 (NS) answered without using a clear mathematical model. In the indicators of working with the model effectively and the steps for implementing the completion plan, research subject 6 (NS) did not explain the plans made but answered correctly but did not use mathematical models and the reasons for true and false statements. In the indicators of working with models in complex problems and the steps for implementing the completion plan, research subject 6 (NS) was not answered by the subject so no steps for the complete plan were made, and could not use the model in complex situations and solve complex problems. In indicators of solving mathematical problems using reasoning and steps to re-examine the solutions obtained, research subject 6 (NS) was not answered by subject 0 so they could not use the steps to re-examine the solutions obtained and could not solve mathematical problems using reasoning, generalizing, formulating and communicate findings.

Based on the description and analysis above, it shows that female students can match the first indicator, namely using knowledge and steps to understand the problem correctly, according to the second indicator, namely interpreting the problem and the steps for compiling a partially correct solution, and according to the third indicator, namely carrying out procedures properly and steps to compose a solution but partially correct. Female students are by the fourth indicator, namely working on the model effectively and the steps for implementing the completion plan are partially correct, according to the fifth indicator, namely working with the model in complex problems and the steps for implementing the completion plan are partially correct. And also female students according to the sixth indicator, which is solving mathematical problems using reasoning and steps to re-examine the solutions obtained partially correctly.

This part is written in paragraph form (not in the form of points or numbers). The conclusion must be written concisely (briefly and clearly). It should not re-discuss the research results. The conclusion must be able to answer the research objectives/questions and should not repeat the abstract or simply rewrite the experimental results. This part should reflect the innovation or improvement of the existing science. Some suggestions related to the results could be added. Of the 6 indicators of numeracy literacy ability, male and female students have differences in the second and sixth indicators, namely students in interpreting problems and solving them with formulas and steps for compiling solutions and students in solving mathematical problems can use reasoning on probability material, make generalizations, formulate and communicate the findings and steps to re-examine the solutions obtained. The

numeracy literacy abilities of male and female students differ in agreement with the research results of Sepriyanti & Julisra (2019) concluding that there are differences in numeracy literacy abilities based on gender.

Male and female students have differences in the way they think and use their reasoning. In the second indicator, female students still cannot interpret the problem using formulas because they still do not understand equating denominators and simplifying fractional operations, but female students explain in detail that they cannot be different from men in interviews, always answering briefly. Male students tend to be less careful in choosing the chosen mathematical model so that they get the wrong answer and tend to be in a hurry to solve the problem. This agrees with (I.W. Agustina and Amin, 2013) that women are superior in accuracy, anxiety, and accuracy in thinking.

#### ▪ **CONCLUSION**

The numeracy literacy ability of male students through the Minimum Competency Assessment questions shows that on the student indicators in the use of knowledge, male students can use knowledge correctly, on the student indicator on problem interpretation, male students can interpret the problem correctly, on the student indicator in implementation. the procedure well, male students can carry out the procedure partly correctly, on the indicators of students in working on models effectively, male students can work on models effectively and partially correctly, on indicators of students in working with models on complex problems, students boys can work with the model partially correct, on the indicators of students in solving mathematical problems by using reasoning, male students have not been able to solve mathematical problems using reasoning.

The numeracy literacy ability of female students through Minimum Competency Assessment questions on student indicators in the use of knowledge, female students can use knowledge correctly, on student indicators of problem interpretation, female students can interpret the problem partially correctly, on student indicators in implementing procedures well, female students can carry out the procedure partially correctly, on the indicators of students working on the model effectively, female students can work on the model effectively, partially correctly, on the indicator of students working with models on complex problems, female students can work on the model partially correctly, on the indicators of students in solving mathematical problems by using reasoning, female students in solving mathematical problems by using reasoning partially correctly.

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