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Abstract : In this study reviews whether project based learning with RME approach assisted by schoology was good quality in students' mathematics literacy ability and how description of students' mathematics literacy ability based on their cognitive style. In this study, students' mathematics literacy ability will be studied on sosial arirhmetic material. Population on this study was seventh grade students in one of junior high school in Semarang city. Samples was determined by random sampling technique and the subjects was determined by purposive sampling technique. Subjects of this study were 2 students from reflective type, 2 students from impulsive type, 2 students from fast-accurate type, and 2 students from slow-innaccurate type. The results of this study show that: (1) project based learning with RME appoach assisted by schoology was good quality in students' mathematics literacy ability, these result indicated by learning process planning that's very good; the implementation of learning class was very good and learning evaluation had a good kriteria; (2) students with reflective cognitive style were able to master communication, representation, devising strategies for solving problems, and using mathematics tool very well; students with impulsive cognitive style were able to master communication very well; students' with fast-accurate cognitive style were able to master communication, mathematising, reasoning and argument, devising strategies for solving problems, and using mathematics tool very well; students with slow-innacurate cognitive style were able to master communication very well

Index Terms: Mathematics Literacy Ability, Project Based Learning, RME, Schoology, Cognitive Style

1 INTRODUCTION

In this article, we will describe mathematics literacy ability based on cognitive style. The type of cognitive style that will be studied in this study is the type of cognitive style that explained by Kagan and Kogan that is reflective-impulsive cognitive style. Reflective-impulsive cognitive style is devided into four types, that is reflective, impulsive, fast-accurate and slow-innaccurate. Mathematics literacy ability analyzed based on seven components of mathematics that is communication, mathematising, representation, reasoning and argument, devising strategies for solving problems, using symbolic, formal and technical language and operations dan using mathematics tool. In addition to describe mathematics literacy ability based on cognitive style, the researcher will also examine whether project based learning with RME approach assisted by schoology good quality on student's mathematics literacy ability. In this study, project based learning with RME approach assisted by schoology was applied to the experiment class and discovery learning was applied to control class. The quality of learning is seen from the three stages proposed by Danielson (2013), that is learning planning, learning process and learning evaluation. Learning planning consists of validity test of learning instrument. Learning process is seen from the result of observation of teacher activities in teaching on project based learning with RME approach assisted by schoology and the results of students' response sheet on this learning. Learning evaluation consist of the result of the analysis of tests of mathematics literacy ability. The hypothesis of this study were (1) the average of mathematics literacy ability on project based learning with RME approach achieve Minimum Completeness Criteria or more; (2) proportion of students who completed KKM on project based learning with RME approach assisted by schoology was better than students on discovery learning; (3) increase of students' mathematics literacy ability on project based learning with RME approach is higher than students on discovery learning.

1.1 BACKGROUND

Mathematics literacy ability is an important ability possessed by students. According to OECD (2018) mathematics literacy ability is capacity of individual's to formulate, employ and interprate mathematics in various contexts. Its so useful for students to be able to understand the world and to be succeed in their lives and careers. Mathematics literacy can help students to understand the usefulness of mathematics in every aspect of life and use it to solve the problems in daily life with their mathematical ability. This is the reason that make mathematics literacy is so important to posessed by students. The definition of mathematics literacy ability refers to the capacity of inividuals to formulate, employ and interpret mathematics. These three words, "formulate", "employ" and "interpret" provide a useful and meaningful structure to regulate the mathematical proces that describe what someone is doing to connect the context of a problem with mathematics and the solution of the poblem (OECD, 2013). Personal characteristics of each students is a factor that determines the succes of learning in addition to other factors such as curriculum used, facilities and infrastructure available, and teacher who teach (Rahman, 2008). As a result, differences in student's cognitive style are one of the factors that need to be considered in learning activities (Daraini, 2012). Cognitive style and problem solving have relationhip, because someone's succes in solving problems depends on how they think, remember the previous concepts related to the problem and how process the information to get the right solution (Sudia & Lambertus, 2017). Kagan and Kogan as quoted by Warli (2009) state that there are two categories of cognitive style, that is reflective and impulsive cognitive style. Given that mathematics literacy is important to improve the quality of mathematics learning, teacher must be able to choose the

right strategy to create learning that can support the succes of mathematics learning. The effort to schoose a strategy for creating effective learning is choose the right and innovative learning model. One of these strategy is use project based learning. Project based learning is learning model that emphasize contextual learning that is given problems and students are asked to solve the problems and produce a product. Nadiyana (2017) doing the research in junior high school and the results of the study state that application of the project based learning make the students can explore, assess, interprate, synthesize and information to produce a various forms of findings related to the concepts agreed upon previously with the teacher, students can learn to build and formulate concepts on his creativity, students' self confidence to foster student's creative souls in mathematics learning. Chen & Chiu (2015) state that to complete the project, students must apply their knowledge to formulate the solutions and use their metacognitive ability to regulate their solution process, thus knowledge and metakognitive skills can be improved. Beside using project based learning teacher can use RME approach to improve students' mathematics literacy ability in leaning mathematics. Kusuma et al., (2016) state that RME learning is a mathematics learning approach that uses contextual problems. Wardono (2014) reveal that excellence of RME is emphasizing learning by doing, accordance with the concepts developed by Frudental, that is relating thing that related to real life. Thus the presentation of realistic questions in learning will make it easier for students to understand the usefullness of mathematics in real life. Fauzan & Yerizon (2013) in the result of their study state that students' mathematical reasoning ability that teach by RME approach better then the students that teach by conventional learning. Applying project based learning with RME approach need learning media as learning support. Technology can uses as learning media to support learning process. The form of develpment of information and communication technology in education is e-learning. According to Aminoto (2014), e learning is an innovation that have big contribution to learning process, where learning process not just listen the material from teacher but the students also do other activity such as observing, doing, demonstrating and others. One of platform that can use as interactive learning media is schoology. Schoology is one of web page in the form of social web where it offers learning same as in the classroom and is easy to use. Teacher can share the material and assignments before learning process in the class. Schoology also has many interesting features for students to use. Schoology is also supported by various forms of medua such as video, pictures, and audio that can attract student's interest.

1.2 LITERATURE REVIEW

1.2.1 Mathematics Literacy Ability

The definition of mathematics literacy based on OECD (2013) is "mathematical literacy as an individual's capacity to formulate, employ and interpret mathematics in a variety of contexts. It includes reasoning mathematically and using mathematical concepts, procedures, facts, adn tools to describe, explain and predict phenomena. It assist inividuals to recognise the role that mathematics plays in the worlad and to make the well-founded judgements and decisions needed by contructive, engaged and reflective citizens". Achievements of student's mathematics literacy in Indonesia can be seen from the result of PISA. Based on the result of PISA in 2003, Indonesia's in 39th from 40 county as samples, the result of PISA in 2006, Indonesia's in 50th from 57 country as sample, the result of PISA in 2012, Indonesia's in 64th from 65 country as sample (Mahdiansyah & Rahmawati, 2014). The newest PISA's result in 2015, Indonesia's in 62th from 70 country as sample (OECD, 2018). The average score of Indonesian students for mathematics literacy ability is 386 while the average score of international score is 439. Indonesia is among the 10 countries with low mathematics literacy ability.Based on the results of observation that done through math subject teacher in one of junior high school in Semarang City, students' mathematics literacy ability especially seventh-grade are still not maximal. Most of the students have difficulty in solving contextual problems. Students assume that contextual problems are so difficult. Students are skilled to solve short questions but can't analyze contextual and realistic problems. Students often have some mistakes when solving the contextual problems. These difficulties and misatakes indicate that student's mathematics literacy ability are still low. Rifai & Wutsqa (2017) states that from their result of study in junior high school in Bantul Regency shows that students mathematics literacy still relatively low. Stecey & Turner as quoted by Sari (2014) define that literacy in mathematics context is to have ability to use mathematical thinking in problem solving in daily life to be better prepared to encounter challenge of life. From some definition of mathematics literacu, it can be concluded that mathematics literacy is a person's ability to understand and use mathematics in various life contexts to solve problems in daily life.

1.2.2 Cognitive Style

Each individual has its own ways of processing infomation obtained. The difference in interpersonal characteristics in how to compile and process information is known as cognitive style. Cognitive style refers to individuals acquiring information and using strategies to respond a task. Cognitive style such as the ability to decipher, synthesize and apply, analyze and evaluate learning information are needed to achieve success in both academics and life because cognitive style related to how someone process information, learning and the extent of its succes in learning (Umaru % Yunusa, 2013). According to Tennant (1988) as quoted by Liu & Ginther (1999), cognitive style is someone's characteristic and approach that consistent to regulate and process information. Cognitive style that stated by experts is quite a lot, in this study focused on reflective-impulsive cognitive style proposed by Kagan and Kogan which was developed in the Warli (200) study. Kagan and Kogan 91970) as quoted by Warli (2009) defines reflective-impulsive cognitive style is the degree/level of the subject in describing the accuracy of the alleged problem solving that contains uncertainty in the answer.

1.3 RESEARCH ISSUES

Research issues in this study are (1) whether project based learning with RME approach assisted by schoology have a good quality?; (2) how description of mathematics literacy ability reviewed from students' cognitive style?

2. RESEARCH METHODS

2.1 Participants

Population of this study are seventh grade students in one of junior high school in Semarang city on academic year 2018/2019. Determination of samples in this sudy using simple random sampling, that is a sampling technique carried out regardless of he strata that exist in the population. In this study samples consist of two students group. The first group is VII I grade students that will get treatment as experiment class that is project based learning with RME approach assisted by schoology and the second group is VII H grade students as control class that is discovery learning. Each class consists of 32 students. The subjects in this study were 8 students from experiment class. Determination of subjects in this study using purposive sampling technique. The way to determine the research subject based on the results of the classification of cognitive style types. The researcher determined 8 students consisting 2 students from reflective cognitive style, 2 students from impulsive cognitive style, 2 students from fast-accurate cognitive style and 2 students from slow-innaccurate cognitive style.

2.2 Research Design

This study use mix methods. The design of this study is concurrent embedded research method. This method is research method that combine quantitative and qualitative methods together but has different weight. Mathematics literacy ability reviewed by cognitive style then analyzed quantitatively and the described qualitatively. Quantitative stages include initial test and final test of mathematics literacy ability. While qualitatife stages inculde observation, interviews, data anaysis and conclusion. Data collection techniques that used in this study are test, interviews, observation, and documentation. Test technique used in this study inculded test of mathematics literacy ability and cognitive style test. Interview technique used to explore students' mathematics literacy ability. Observation technique used to see the implementation of mathematics learning using project based learning with RME approach assisted by schoology. Documentation technique used to get student's initial data which will later be used as research samples.

2.3 Research Instrument

Instruments that used in this study consist of (1) learning instrument that consist of syllabus, lesson plan, project worksheet, and teaching materials; (2) mathematics literacy test instrument consist of initial test and final test; (3) cognitive style test instrument, that is MFFT insttument that developed by Warli that have been tested for validity and reliability; (4) interview guidline instruments; (5) observation instruments consist of Teacher Observation Sheets, Student Respons Sheet and observation sheets for students' mathematics literacy ability. Before being tested on the research sample the question item were first tested in the trial class to determine the validity, reliability, differentation and difficulty level of each item of mathematics literacy ability test. Validity is a measure that shows the level of validity of an instrument. A good and valid instrument if it has high validity. According to Arikunto (2012) an instrument is said to be valid if it's able measure what it wants to measure. Reliability refers to an instrument is reliable enough to be used as a data collection tool because the instrument is good. A test is said to be reliable if it can give the same results if tested repeatedly on the same subject at a later time. According to Arikunto (2012) difficulty index is a number that shows the difficulty and ease of a problem. After analyzing the validity, reliability, difficulty level and different power of the questions, in determining the mathematics literacy abiliy test instrument seven items were selected from the initial and final test that fulfilled the seven components of mathematics literacy. The initial test questions used fulfilled the following criteria, After analyzing the validity, reliability, difficulty level and the different power of questions, in determining test instrument of mathematic literaccy ability, seven items were selected for the initial test and seven items were selected for the final test that fulfilled the seven components of mathematics literacy. The initial test used fulfill the criteria as ffollows, item 1 with validity 0.4; reliability 0.9728; moderate level of difficulty and good power difference; item 2 with validity 0.4; reliability 0.9728; moderate level difficulty and quite different power; item 3 with validity 0.61; reliability 0.9728; easy level of difficulty and good power difference; item 4 with validity 0.69; reliability 0.9728; moderate level of difficulty and very different power; item 5 dwith validity 0.69; reliability 0.9728; difficulty level is difficult and power difference is quite good; item 6 with validity 0.37; reliability 0.9982; difficulty level is difficult and the power of difference is quite good; item 7 with validity 0.75; reliability 0,9728; difficulty level is difficult and the power is different. The final test question used fulfilles the following criteria, item 1 with validity 0.76; reliability 0.9867; easy level of difficulty and quite different power; item 3 with validity 0.77; reliability 0.9867; moderate level of difficulty and very different power; item 4 with validity 0.66; reliability 0.9867; moderate level of difficulty and good power difference; item 5 with validity 0.71; reliability 0.9867; difficulty level is difficult and the power is different; item 6 with validity 0.85; reliability 0.9867; moderate level of difficulty and very different power; item 7 with validity 0.59; reliability 0.9867; difficulty level is difficult and the power is very different.

2.4 Data Analysis

Data analysis technique carried out in this study was data analysis of quality learning aids, analysisis of implementation of learning, analysis of quantitative data and qualitative data. Quality of learning planning include preparation before learning which has a set of learning aids that have been validated by expert validators in a minimum good category. Lessnon aids consist of syllabus, lesson plans, project worksheets and teaching materials. Learning aids analysis is done by calculating the average score of learning aids. The learning aids is valid if the average value is in the minimum category. Quality of learning at the implementation stage learning can be seen from the value of the implementation of learning contained in the teacher's observation sheet and student response sheet. On the student response sheet, the assesment that used consist of four choices of answers that is strongly disagree, disagree, agree and strongly agreeQuantitative data analysis consist of initial data analysis and final data analysis. The initial data analysis was carried out before being given treatment, this was done to find out

whether the sample had the same initial conditions. Initial data analysis consisted of normality test, homogenitiy test and mean similarly test. Final data analysis consisted of normality test, homogenity test, and hypothesis test. The 1 hyphotesis test carried out to find out whether the average pf students' mathematics literacy ability that get project based learning with RME approach assisted by schoology reach Minimal Completeness Criteria or more, that is 61. The 2 hyphotesis tes carried out to find out whether proportion of students that reach KKM on project based learning better than the students on discovery learning. The 3 hyphotesis test used to find out whether the improvement of students' mathematics literacy ability on project based learning with RME approach assisted by schoology is greater than students on discovery learning. Qualitative data analysis consist of data validity test, data reduction, data presentation and conclusin drawing.

3 RESULTS AND DISCUSSION

3.1 The Result

3.1.1 The Result of Quality of Learning

Before carrying out learning, researchers compile learning aid consist of syllabus, lesson plans, prpject worksheets, and teaching materials. Learning aids compiled by researchers adapted to the learning model choosen, that is project based learning with RME approach assiste by schoology. The learning aids compiled are the assessed and validated by the validator. The validation and assesments of learning aids aims to measure the flexibility and validity of the aids so that it can be used in learning. Validation is carried out by component experts, that is validators. Validators consist of 2 peoples, that is lecturer and math teacher. In general, the result of learning aids' validation by the two validators are presented in Table 1 below.

Table 1 The Result of Learning Aids Validation

Komponen	Score Validator 1	Validator 2	Score Average
Syllabus	87.5	90	88.75
Lesson Plan	87.5	84.37	85.93
Project Worksheet	87.5	95	91.25
Learning Materials	90.83	80.83	85.83

Based on these table, the five components are very good criteria. So that based on the validity criteria, lthe learning aids was concluded that the learning process of project based learning with RME approach assisted by schoology was valid and feasible to use. On learning process, researcher doing the learning by paying attention to the components of the project based learning with RME approach assisted by schoology. The implementation ofnlearning is assessed from the result of teacher's observation by the observer and student's response. The method used to assess is the method of observation. The use observational method is intented to determine students' responses to the project based learning with RME approach assisted by schoology and the ability of teacher to manage learning using project based learning with RME approach assisted by schoology.

1) Observation of teacher's activity on project based learning with RME approach assisted by schoology

Observation of teacher's activity on project based learning with RME approach assisted by schoology was carried out for 4 meetings on social arithmetic material. Every meeting, observer observation the implementation of learnign during the activity with the teacher's activity observation guidelines. Observer in this study is mathematics teacher of VII grade in one of junior high school in Semarang city. The value of observation of learning implementation for each meeting is as follows; the first meeting the value is 77 on good category, the second meeting the value is 83 on very good category, the third meeting the value is 90 in very good criteria, and the fourth meeting the value is 92 on very good category, so the average value of learning implementation obtained was 85,5 in very good category. Based on these result, it can be concluded that project based learning with RME approach assisted by schoology in very good criteria.

2) Student Response Sheet

Students' response data is obtained through the Student Response Sheet that given at the last meeting of learning activity. Data obtained from Students Response Sheet instrument that is data about students during activities on project based learning with RME approach assisted by schoology. Data were analyzed using the average value htat obtained by students on each item statement. Based on the calculating obtained that the average response value of students is 81.25 so that student response are in very good category. These result indicate that students provide a positive response to the implementation of project based learning with RME approach assisted by schoology. The third stages of learning quality analysis is evaluation, that is evaluation in final result of learning process on project based learning with RME approach assisted by schoology. Initial and final data of mathematics literacy ability that processed use the methods that has been determined. Assessment of the learning result be measured based on hyphotesis test include avergae test, classical exhautiveness test, different proportion test, average difference test and increase in different test. Before carrying out the test, the initial test data used must be tested for normality, homogenity and similarity two means. Final data must be tested for normality and homogenity to ensure normal and homogenues data. The normality test is done to find out whether data comes from two sample that are normally distributed or not. In this study, normality test uses SPSS 22.0 software program. The result of Kolmogorov-Smirnof test, stated that population is normally if *Sig* value on the Test of Normally table on Kolmogorov Smirnov column > level of significant (0.05) (Lestari & Yudhanegara, 2017). From the result of calculating uses SPSS 22.0 software get that initial data of two classes have normally distributed. Homogenity test used to whether two classes have some varians or not. If two classes have same varians so can be said that two classes are homogenous. Homogenity tes can uses ANOVA test. Criteria of draw conclussion is H_0 accepted if the value of *Sig* on Levene's Test for Eauality of Variances > level of significant (0.05) (Lestari & Yudhanegara, 2017). The result of homogenity test show that the two classes are homogeneus. The mean similarity test is used to test the similarity of the

average of the two classes having the same initial ability. The mean similarity test was carried out by the two-part t test. The result of mean similarity test of initial data show that two classes have same initial ability. Therefore, both classes can be used as samples of this study. The result of normality and homogenity test of final test data of mathematics literacy ability were tested using the same method as the normality and homogenity initial test. The result of normality test for final test of two classes show that the data is normally. Homogenity test of final test data from two classes also show that two classes have same varians. Therefore, calculations using parametric statistics can be used to hypothesis 1, hyphotesis 2 and hyphotesis 3 test. Hyphotesis 1 test (KKM test) was conducted to find out wheteher the average of mathematics literacy ability in experminet class reached KKM or more, with KKM 61. This hyphotesis tes using the average test. The significat level used is $\alpha = 0{,}05$ and the test criteria is accept H_0 if $t_{hitung} < t_{tabel}$ obtained from the t-Student distribution list with $dk = (n-1)$. In level significant 0.05 obtained the value of $t_{tabel} = t_{(1-\alpha)} = 1{,}695519$. Because $t_{hitung} \geq t_{(tabel)}$ so H_0 rejected dan H_1 accepted, means that the average of students' mathematcis literacy ability on experiment class reach minimum exhautiveness criteria or more, KKM = 61. Hyphotesis 2 test (diferent proportion test) was conducted to find out whether proportion of students that who completed matheamtics literacy ability in project based learning with RME approach assisted by schoology was better than students on discovery learning. These gyphotesis test using the right-hand proportion test. Level of significant that used is $\alpha = 0{,}05$ and the test criteria is accept H_0 if $z_{hitung} < z_{(0{,}5-\alpha)}$ with $z_{(0{,}5-\alpha)}$ obtained from the standart nomal list with opportunities $(0{,}5-\alpha)$. In level of significant 0,05 obtained the value of $z_{tabel} = z_{(0{,}5-\alpha)} = 1{,}645$. Because $z_{hitung} \geq z_{(0{,}5-\alpha)}$ so H_0 rejected and H_1 accepted, means that the proportion of students that reach individual exhautiveness of mathematics literacy ability on project based learning with RME approach assisted by schoology greater then proportion of students that reach individual exhautiveness on disccovery learning.

Hyphotesis 3 test (different increase two average test) was conducted to find out whether increase mathematics literacy ability on project based learning with RME approach assisted by schoology better than students on discovery learning. This test using n-gain test. The level of significant was used is 0.05 and obtained the value of t_{table}= 1.669804. Because t_{count} = 2.82 ≥ t_{tabl} 1.669804, so H_0 rejected and H_1 accepted, means that the average of increase students' mathematics literacy ability on project based learning with RME approach assisted by schoology more than the students on discovery learning. In calculating the value of increase in students mathematics literacy use normalized gain values, obtained the value of n-gain in the experiment class is 0.400045 so can be concluded that the value of increase in mathematics literacy ability of students using project based learning with RME approach is calssified on moderate interpretation.

3.1.2 Mathematics Literacy Ability Reviewed from Cognitive Style

In this study, selection of research subjects based on the result of cognitive style tests conducted in VII I class. MFFT results of student of class VII in one of junior high school students in Semarang city, obtained 8 students with 25% in reflective cognitive style, 12 students with 37.5% in impulsive cognitive style, 4 students with 12.5% in fast-accurate cognitive style and 8 students with 25% in the slow-innaccurate cognitive style. The proportion of students with reflective and impulsive cognitive style characteristics is greater than students who have fast accurate and slow innaccurate cognitive style. This result is in accordance with several previous studies. Purnomo et al (2015) show that proportion of students with reflective and impulsive cognitive style greater than students who have fast accurate and slow innaccurate cognitive style. The selection of reserach subjects is based on the results of MFFT. The chosen subjects for reflective cognitive style is 2 students as interviews subjects. Reflective subjects are taken based on consideration of longest and most accurate time records. The chosen subject for impulsive cognitive syle is 2 students as intervies subject. Impulsive subjects are taken based on consideration of fastest and least accurate time record. Selecterd subjects for fast accurate cognitive stye are 2 students as interviews subjects. The fast-accurate subjects are taken based on consideration of the fastest and most accurate time record. The chosen subject for slow-innaccurate cognitive style are 2 students as interviews subjects. Slow-innaccurate subjects is taken based on consideration of the slowest and least accurate time record. Mathematics literacy ability is analyzed based on seven component of mahematics on OECD, that is communication, representation, mathematising, reasoning and argument, devising strategies for solving problems, using msymbolic, formal and technical language and operations, and using mathematics tool. Mathematics literacy ability of reflective cognitive style generally have good mathematics literacy ability. Reflective students can understand, interprate and present infromation from the problems, translate the problems with make equations and use mathematics formulas, devising right strategies and write the solving steps, and use mathematics tools to help solve problems. The obstacle experienced by students in this group is the processing time to solve the problem that tend to be long. Students in the impulsive cognitive style are able to understand, identify and present information from the problem carefully and precisely. Students in this group have problems using mathematics tools. This is because students in this group tend to be inaccurate and in a hurry to work on the questions so that they are not careful in making measurement. Students in the fast-accurate cognitive style can understand, identify and present information from the problem carefully and precisely, changing problems defined from the real world to the right form of mathematics, reasoning logically, giving justification for the solution to the problem, determining the right strategyy to solve the problem and using mathematics tools to help calculate activities in solving problems. This makes it easier for students to solve problems correctly. Students in slow-innaccurate cognitive syle can understand, identify and present information from the problem carefully and precisely. Students in this group obstacles in using logical reasoning to solve problesmms, determine strategy to solve the problems, using mathematical algorithms and symbols to suppot problem solving and use mathematics tools. This is because students in this group need a long time to solve problmes and not be careful.

3.2 DISCUSSION

Quality learning process can lead to high and quality student learning outcomes (Nasution, 2017). Project based learning with RME approach assisted by schoology has good quality on mathematics literacy ability. This is indicated by rsults of the study as follows: (1) learning planning, leaning palnning conducted assessment of learning aids consisting of syllabus, lesson plans, project worksheet and teaching materials in included in very good category; (2) Learning Implementation. At the implementation of learning, that is assessment of teacher activities and students response to the quality of the implementation of learning in very good category; (3) Learning evaluation. At the learning evaluation, it was found that students mathematics literacy ability in project based learning with RME approach assisted by schoology approaching classical exhautiveness, that is at least 75% of the students achieved individual exhautiveness, that is 61; the average value of students mathematics literacy ability on project based learning with RME approach assisted by shcoology reach the Minimum Exhautiveness Criteria or more, that is 61; proportion of students' mathematics literacy on project based learning with RME approach assisted by schoology greater than students in discovery learning; the average value of students mathematics literacy on project based learning with RME approach assisted by schoology greater than students in discovery learning; the improvement of students' mathematics literacy ability on project based learning with RME approach assisted by schoology greater than students on discovery learning. The result of this study supports the research conducted by Anita (2017) which states that project based learning makes students more understand the material because assignments given require them to search for and explore their own solutions to the problems given. This result also supports the research conducted by Rais (2010) which states project based learning increase students problem solving ability. Research by Wardono (2014) states that RME learning is able to improve students' mathematics literacy ability. Afriyanti (2018) on his research stated that the use of schoology can increase the interaction between students which causes students' problem solving can improve. Students mathematics literacy ability on reflective cognitive style master four components of seven components of mathematics literacy, that is communication, representation, devising strategies for solving problems, and using mathematics tool. Whereas in other three components, that is mathematising, reasoning and argument, and using symbolic, formal, technical language and operations siswa reflective quite master and only found a few obstacles. This result supprort the research conducter by Daraini (2012) which states that the characteristics of reflective cognitive style have problem solving ability greater than impulsive cognitive style. The result also supports the research conducter by Rozencwag and Carroyer (2005) which also states that reflective cognitive style can process information analittically and can show maturity of cognition and research conducted by Azhil (2017) which states that students with reflective cognitive style 75% can solve the problem correctly. Reflective students tend to be careful in solving problems and relatively long. Answer papers tend to be many stages of solutions. Students with impulsive cognitive style master on communication. While for the other five components, that is mathematising, representation, reasoning and argument, devising strategies for solving the problems, using symbolic, formal, technical language and operationsi impulsive students are quite able to master and only find a few obstacles. The result of this study support the research conducted by Azhil (2017) which states students with impulsive cognitive style have an average value of 25% in solving problems correctly. This result also supports the research conducter by Daraini (2012) which states that students with impulsive cognitive style have problem solving ability lower than reflective students. Rozecwag and Cooroyer (2005) also states that impulsive students is able to process infromation holistically but less cognitively. Students with fast-accurate cognitive style master on communication, mathematising, reasoning and argument, devising strategies for solving problems dan using matehematics tool. In representation and using symbolic,formal and technical language and opertions, fast accurate students able to quite master and found little obstacle. This results support the study concucted by Rozencwag and Cooroyer (2005) which states that fast-accurate cognitive style can process indormation analitically or holistically and can show maturity of cognition. Ningsih (2012) also states that fast-accurate cognitive syle almost the whole is the same as reflective students but in solving uestion tends to be fast. Students with slow-innaccurate cognitive syule master to communication. While the component mathematising and representation slow-innaccurate stdents able to quit master, while the other components that is reasoning and argument, devising strategies for solving the problems, using symbolic, formal, technical language and operations amd using mathematics tool slow-accurate students have not been able to master and find many obstacles. This result support the reseacrh was conduced by Rozencwag and Corroyer (2005) which states that the characteristics of slow-innaccurate cognitive style are slow and innaccurate in solving problems and have not been able to process information analytically or holistically. This also supports Ningsih (2012) which states that students in slow-innaccurate cognitive style, the reason used in the problem tend to be irrelevant and have not been able to make conclusions because they have not finished working and don't do an overview.

4. CONCLUSION

1) Project based learning with RME appoach assisted by schoology was good quality in students' mathematics literacy ability, these result indicated by learning process planning that's very good; the implementation of learning in class was very good and learning evaluation had a good kriteria.

2) Students with reflective cognitive style were able to master communication, representation, devising strategies for solving problems, and using mathematics tool very well ; students with impulsive cognitive style were able to master communication very well; students' with fast-accurate cognitive style were able to master communication, mathematising, reasoning and argument, devising strategies for solving problems, and using mathematics tool very well; students with slow-innacurate cognitive style were able to master communication very well

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