

Improving Students Mathematics Learning Achievement through Problem Based Learning Strategy of the Grade Students

Lily Rohanita Hasibuan¹, Eva Julyanti^{2*},
Amin Harahap², Rohani², Panggih Nur Adi², Arman Harahap²
^{1,2}Fakultas Keguruan dan Ilmu Pendidikan Universitas Labuhanbatu

Abstract:- This Research from lowering activity and the lower of result learning student mathematics caused by lower the of teacher ability comprehend the study activity. Less be its relevant is study applied a teacher with an eye to and mathematics characteristic. This research to increase activity and result of learning student mathematics by applying strategy of Problem Based Learning. This Research represent the research of class action (Classroom Action Research executed in SMA Country 1 Silangkitang by subjek research is student of class X amounting to 32 student. Research object study base on the problem to increase result of learning student mathematics. Research data obtained from scenario study, sheet of observation of student activity, tes result of learning, sheet of observation of teacher ability manage the study and enquette of respon student. result Validasi to peripheral in category (can be used without revised). This research consisted of 2 cycle and tes passed to each, every final cycle. Result of data analysis cycle 1 obtained result: (1) perception result to activity learn during cycle study one known the percentage of mean score 79,28 %, (2) complete result klasikal only reach 68,75 % and, (3) positive respon to each, every given question. Only one just question giving negative respon. While cycle II obtained: (1) flattening - flatten the respon student to study equal to 3,7, this matter indicate that the student have had the positive respon even come near very positive to study of Problem Based Learning which executed, (2) value result of learning equal to 93,6% from student amount following tes have succeeded, (3) result of observation of teacher ability manage the study be at the good category horizontally - flatten 93,56 %. Pursuant to result cycle II conclude that applying base on the problem can improve student activity during study and can improve the result learn the student mathematics by various reviseing - revise the action pursuant to result refleksi to process and result of study.

Keyword:- Problem Based Learning, Student Activity and Result of Learning.

I. INTRODUCTION

To develop and apply the function education better and reached by as according to what expected, hence human being especially competitor educated insufficient is only trained but have to be educated. Educating not merely student made skillful practically to its environment, but educating have to assist the student to become the their/his self and educate to mean the student dribbled sensitive so that to its environment. In its applying to make student becoming his self, hence needed by a environment learn democratic giving rope to protege to do the choice - action choice learn and will push the student to be involved active in study applied by teacher. From other side the important matter freedom is which need there in environment learn democratic realness that is student have the strength beside weakness, having bravery beside have cold feet and worry, can fulminate beside can be happy (Budiningsih,2005).

Mathematics as a means of to finish the problem by translating problem - problem into mathematics symbol (Hamzah: 2014). When conversing about experienced phenomenon about something hence made by symbol - symbol move that in such a way that calculation of which deal with its can be finished easily. Mathematics study represent the effort to increase energy of natural existence student, improving student intellegence, and sing different tune its positive. Study executed by teacher in class have to be planned correctly up at improving energy of natural existence student, improving student intellegence, because fungsiya is to improve the durability of penalaran student, assisting the solving of problem faced by the student, and make the skillful student or have the adequate ability.

Mathematics study executed by teacher in class non light duty. In teaching teacher deal with a group of student which vary character, background and also ability in comprehending study items given by teacher. Because the not an easy duty is not something that surprise if teacher when executing study in class a lot find difficulties the. Mathematics study executed by teacher during the time likely less give the opportunity to student to peep out the idea, idea - idea and less maximize the student ability.

From observation result and interview with teacher SMA Country 1 Silangkitang that niali flatten - flatten the mathematics 3 the last year with the subject of [is other; dissimilar result learn the lowest mathematics. Besides lowering nya assess to flatten - flatten also own the tendency memorize from comprehending items - Iesson items given by teacher.

From the results of the research Harahap, A (2017) has been using learning kooperatif STAD and acquire improved good results, so the researchers are also interested in using cooperative learning with different models, namely Problem Based Learning, Study strategy Base on the problem enable growth of to knowledge protege mount, and create the environmental atmosphere enable the student execute the activity learn the mathematics and process to learn the study strategy base on the problem centre on learn by entangling active parsipasi competitor is educated. Study approach base on the problem give the opportunity at student unuk try and look for the experience and find by X self process the trouble-shooting about mathematics.

Convergent study is solving of problem very hand in glove its bearing when executing study of study strategy base on the problem. Study strategy base on the problem give the opportunity at student for the bereksplorasi of to collect and analyse the data completely to solve problem faced the (Sanjaya: 2010). Study strategy base on the problem interpreted as rangkain of study activity placing forward to solving of problem faced naturally.

If there are student which less hanker to mathematics Iesson, hence teacher have to can try student to have the enthusiasm learn, to grow the student enthusiasm one of effort which can be conducted by providing an explanation of - piquancy and good for life and also something that relate to the student aspiration. Mathematics study done a teacher also have to correspond to the talent and student ability to be able to follow the study executed by teacher. Easiness to mathematics and student enthusiasm in mathematics represent the very factor is necessary for cognate growth student and can influence the result learn the student mathematics is inclusive of items of cube and log.

II. METHOD

This Research type is research of class action (Classroom Action Research) as a mean to improve the result learn the student, teacher ability manage the study and improve the enthusiasm learn the student. As for strategy taken is study strategy with the study base on the problem special mathematics study of items of linear and pertidaksamaan equation one variable.

Subjek is teacher and student of class of X-B SMA Country 1 Silangkitang amounting to 32 student. this Research object cover the study activity by using study strategy base on the problem of special mathematics study items of linear and pertidaksamaan equation one variable, to increase result of learning student, teacher ability

manage the study and improve the enthusiasm learn the student at items operate for fraction. This research is executed during 2 cycle with an eye to improve; repair the process and result of study. Step the - step used in this research follow the step - step the research of class of Kemmis and Me taggart (Darmadi: 2011). A cycle spiral consisted of 4 component that is planning, action, perception and refleksi.

Technique data collecting used is:

➤ Tes

Tes used is tes written the in form of description so that visible process the student answer in detail. With the amount 10 problem and guidance of score of problem item use the scale holistic that is: score 0 (problem is not done), score 1 (data rewritten but is not utilized, there process but application do not problem, so that not reach the real correct result), score 2 (process there is but wrong answer, insufficient work good to reaching answer), score 3 (real correct process enough but there calculation mistake), score 4 (real correct process and real correct calculation)

➤ Perception

This Research Perception is to perceive the study process by a teacher seen from activity learn in study with the study strategy base on the problem. Perception done by coleage and teacher of mathematics of class X as observer. Result of perception from each; every observer embracing by the end of cycle.

➤ Enquette

Enquette in this research represent the enquette closed to be intended to know the respon student to study with the study strategy base on the problem which nereka follow as a mean to obtain get the additional description, sum up as much 25 item. Indicator Enthusiasm learn that is a) feeling like, b) attention in learning, c) substance of Iesson and interesting teacher attitude, d) benefit and subject function. Alternative Answer every item there is 5 that is: SL when feeling always, S when feeling often, KK when feeling sometime, J when feeling seldom, TP when feeling have never.

III. RESULT AND DISCUSION

A. Deskripsi Cycle I.

➤ Planning

this cycle defin the study of study strategy with the study base on the problem to collaborator (coleage and learn as observer), compiling RPP with the strategy pembelajaran base on the problem to be used as reference in executing cycle action 1 and II, preparing spread sheet student (LKS) utilized in group, planning division of student group cooperate with the teacher, preparing instrument of data collecting in the form of format of observation of teacher activity, tesresult of learning student.

➤ Execution

Study Activity executed in 5 times meeting first meeting study target is defin the fraction, fraction for the price of. execution Pembelajaran with the approach of

Problem Based Learning by teaming. Study step of 3 phase that is activity early, activity of final activity and nucleus core.

➤ Perception

Perception executed concurrently with the execution of study activity. Perception done to applying pembelajaran, student activity. Perception to applying study done in each meeting cover the activity early, activity of final activity and nucleus; core. Result of observation perception at sheet of perception of applying of approach of Problem Based Learning and student activity obtained amount of result of perception to activity learn during score study flatten - flatten 79,28%. Respondent to study from questionnaire as a whole that is 2,8. Value - assess found on column SL, S, KK, J, TP represent a lot of student which member respond to each; every statement seen positive student member respond to each; every given question. So that can be said that a student have had the positive respond to executed study. result of Test student generally still lower where student obtaining 21 from maximum score 40. From 32 student there still 10 student which not yet reached complete learn by klasikal only reach 68,75%.

➤ Refleksi

Study at sisklus 1 not yet reached the optimal result as expected by goodness from applying of approach of Problem Based Learning, student activity, and also from result learn the student. From applying of Problem Based Learning of aspect do the activity all day long and awaken the knowledge early, teacher require to do the action completion. From student activity at aspect of involvement of knowledge evocation early and work, need the activity device which can entangle the student actively in submitting opinion, question, answer, participating in group, and present the result LAS. From result learn the student need the more tuition so that student comprehend the given problem. Thereby study have to be improve repaired cycle II.

B. Deskripsi Cycle II.

➤ Planning

Pursuant to refleksi [of] [at] cycle I hence matter have to be improve; repaired and completed cycle II require to be compiled by some peripheral that is:

- Compiling RPP as reference in executing action of cycle II with the items Improve The Result Learn the Mathematics, RPP designed as according to study of Problem Based learning with interest emphasize the aspect submit the study target of its important clarification and relevant lesson with the everyday life and also combination.
- Preparing Sheet of Student Activity (LKS) used by teaming. LAS designed with interest a lot of everyday problem gift in the form of story problem.
- Planning division of student group work with the teacher

- Preparing instrument of data compiler in the form of format of observation of student activity, and envelope about respond student to study of Problem Based Learning.

➤ Execution

Study activity at cycle II executed in 2 times meeting, executed to First meeting determine to improve the result learn the mathematics by making moderate fraction and put the ax in the helve the story related to improving result learn the mathematics. second meeting of study target is menentukan improve the result learn the mathematics with the fraction quantifying and put the ax in the helve the story related to improving result learn the mathematics. Study step of passing 3 phase that is activity early, activity of final activity and nucleus; core. At next meeting stages; steps executed is equal to different previous meeting only LAS.

➤ Perception

Perception executed concurrently with the execution of study activity. Perception done to applying of pembelajaran Problem Based Learning, student activity and result of learning student. Perception to study applying conducted in each meeting cover the activity of early, activity of final activity and nucleus; core Result of observation perception at perception sheet to applying of Study of Problem based Learning by activity learn during study of score percentage flatten - flatten 93,56% its meaning is teacher moment execute the study process during cycle of II of applying of study of Problem Based Learning almost 100. Respondent to study of visible cycle II from questionnaire given as a whole shown by a above score 3 and flatten - flatten equal to 3,7 bahwa student have had the positive respond even come near very positive to study of Problem Based Learning, use LAS form to learn the group and tuition learn the. Result learn the student in menyelesaikan tes reach the complete level 93,6 % earning in telling have complete and have needn't improve repair.

➤ Refleksi

Activity of early and final activity study applying have perfected as expected.

IV. CONCLUSION

Pursuant to research result which have dipaparkan, conclude in this research shall be as follows:

- Applying model the study of problem based learning can improve the result learn the cycle of I and cycle II. Cycle I have been obtained by 68,75% from amount of entirety student succeeded the, cycle II there are 93,6% from amount of entirety student succeeded to stay in the good category. So that result learn the student expand, hence process the study take place expected a student involved actively in conducting mathematical.
- Applying model the study of problem based learning can improve the teacher ability manage the study after melewati siklus I and cycle II, this matter is knowable perceived cycle I obtained 79,28% and cycle II 93,6% (very good). gift Apersepsi and motivate to student

before confronting student at one particular problems represent the early stage which effective enough to grow the positive attitude student of during study process.

- Respon Student to this cycle II study is visible from enquette which passed to is a student which can be seen respon student as a whole to each every statement. From visible data to each every statement given by have been shown a above score 3 and mean of respon student to study equal to 3,7. This matter indicate that the student have had the positive respon, even come near very positive to study of executed problem based learning. Positive Responstudent especially to use LAS, form to learn the group, tuition learn at study of problem based learning.

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