

Effort Improving Learning Outcomes Mathematics On Matter Dimensions Three With Method Invention Supervised Participants educate Class XII IPA 1 SMAN 1 Rambah Academic Year 2022/2023

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Abstract, *This chamber of darjah action study contains 4 stages, namely planning, implementing the action, observing, and reflecting. The subjects in this study were 27 students of class XII IPA 1 at SMAN 1 Rambah consisting of 8 males and 19 females who had heterogeneous levels of proficiency. This research activity is carried out in two cycles, namely cycle I and cycle II. Prior to this, pre-circulation actions have been carried out to find out the implementation of learning that does not use the guided discovery method. The results of the study prove that the use of guided discovery methods can improve student learning activities and outcomes in three-dimensional materials.).*

Keywords : learning outcomes, mathematics, Student.

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I. INTRODUCTION

Mathematics is as something field science which is tool think ,communicate, tool For solve various problem(Hamzah and Masri, 2010). Activity learning mathematics is part of the educational process in schools, and have role important in develop ability think in a manner systemati, logical, critical, and creative required in life everyday (Permendikbud No. 81A of 2013).

Mathematics is as something field science which is tool think, communicate, tool For solve various problem practical, whose elements logic and intuition, analysis and construction, generality and individuality, and possess branches including arithmetic, algebra, geometry, and analysis (Hamzah and Masri , 2010).

As something eye lessons, math must own objective in carry out the learning process.As for goals learning mathematics is for participants educate own ability among others: 1)

Understanding draft math , explained linkages between concept and apply draft or algorithm in a manner flexible, accurate, efficient, and precise in solving problem ; 2) Using reasoning on patterns and traits, doing manipulation mathematics in make generalization, composing evidence, or explain ideas and statements math ; 3) Solve covering issues _ ability understand problem, designing a mathematical model, solving the model and interpreting the solution obtained ; 4) Communicating idea with symbols, tables, diagrams, or other media for clarify circumstances or problem ; 5) Have attitude value utility mathematics in life , that is have a desire know, concern , and interest in learn math, as well attitude tenacious and believe self in solving problems (Permendiknas No. 22 of 2006).

Ability level understanding mathematical participant educate can seen from results Study participant educate after following the learning process math . Study results expected math _ is results Study achieving mathematics _ completeness Study math. because _ that , every participant educate must reach criteria minimum completeness for every competence base eye lesson math that has set schools (Permendikbud No. 66 of 2013).

But in fact _ in the field, a lot disappointment with achieved results _ participant educate. Very little participant students who have tendency For study and understand mathematics with fine , state the make participant educate No obtain maximum results. in achievement results learn. Based on experience writer in teach mathematics at SMA Negeri 1 Rambah found a number of problem in the learning process teach among them participant educate difficulty in understand draft math . Participant educate often rigid in learning mathematics be marked with shame participant educate ask and a little very participant learn what you want put forward his opinion alone . Difficulty participant educate This seen from low value obtained _ inhabitant eye study _ lesson mathematics previously that is only 14 people (50%) completed of 27 counts participant educate class XII IPA 1, while another 50%. Not yet reach completeness .

For reach completeness Study need held revision method the approach used in the learning process next . order participants educate more enthusiastic worn method discussion , however method This Not yet give satisfactory results , in _ discussion No all participant educate active Study except participant smart

students , meanwhile _ participant learn who is capable sigh more Lots playing , telling stories and not follow discussion and only copy results discussion . Often found error participant educate in finish something problem mathematics that is in use the concepts to be used For finish problem the .

this _ because tendency participant only educate _ memorize or not understand with Good draft mathematics the . Condition This cause participant educate easy forget will the concepts in question . Because participant educate control material on the level rote without exists understanding , then No seldom participant educate feel overwhelmed when faced with a few problems different with example questions given by the teacher. as a result results Study participant educate become low .

Notice the problems raised related with implementation of the learning process in the classroom , one business to be applied For overcome problem the is application method invention guided, because in general participant educate Still need instruction or guidance , fine from both the teacher and from friends , in particular in learning dimensions three.

order really understand and get apply knowledge , participants educate need

pushed For Work solve problem , found all something For himself , and trying hard realizing their ideas (Permendikbud No. 81A of 2013). According to Bruner (in Ratna Wilis Dahar , 2010) participants educate should Study through participation in a manner active with concepts and principles For obtain experience and do experiments For find principles That alone . Acquired knowledge _ with Study invention will more last long because produce real knowledge _ meaning so that results Study invention have more transfer effect Good than results Study other .

In the learning process math in class , participant educate demanded For try Alone For look for solving problem with the knowledge he has with teacher guidance . this _ show that through learning with use method invention guided results Study participant educate more means , so draft or learned principles _ can understood by participants learn and get last long inside his memory .

Based on description above , author _ try apply method learning in research entitled : " Effort Improving Learning Outcomes Mathematics On Matter Dimensions Three With Method Invention Supervised Students _ Class

XII IPA 1 SMAN 1 Rambah Academic Year 2022/2023”.

II. RESEARCH METHODS

1. Place and Time of Research

Study This held at SMA Negeri 1 Rambah regency Rokan Hulu in odd semesters year teaching 2022/2023, from July 25 , 2022 until September 22 , 2022.

2. Subject Study

subject in study This is participant educate class XII IPA 1 SMA Negeri 1 Rambah subdistrict Explore Regency Rokan Hulu years teaching 2022/2023, with amount participant educate consisting of 27 people of 8 men and 19 women .

3. Implementation Study

For know level ability beginning participant educate in understand distance in room dimensions three given test beginning (pretest). Study action class This planned two cycles with 8 meetings . each cycle consists from 3 meetings and 1 test end ,. The author 's actions do in study This is guide student find draft math . Implementation pattern gift action This with using cycle models . According to Suharsimi Arikunto (2007:16) " research action class broadly speaking _ there is four the stages passed , namely : (1) planning , (2) implementation , (3) observation , and (4) reflection "

III. RESEARCH RESULTS AND DISCUSSION

1. Research Results

Researcher expose results analysis description of activity and outcome data Study mathematics participant educate class XII IPA 1 SMA Negeri 1 Rambah on the material dimensions three that have held in odd semesters year learning 2022/2023. Before implementation action , especially formerly done socialization about use method invention mentoring and giving test beginning For see ability participant educate as well as For distribution group . Study This consists of 2 cycles with 8 meetings . each cycle consists from three meetings and 1 test end cycle .

1.1 Research results cycle 1

In this 1st cycle researcher carry out learning with method invention guided with material tree distance point to point and distance point to the line. Learning done with using the Worksheet Participant Educate (LKPD). Participant educate grouped into groups heterogeneous already _ determined before , and participants educate directed to complete questions in accordance with instruction in LKPD with help tool display form get up room and guided by the teacher. After discuss at the end meeting participant educate told forward class present results it works .

on each meeting done observation to activity participant educate in answer questions in LKPD. Cycle One This held as much three meetings and one repetition __ daily . on each meeting writer guide participant educate in find draft as well as formulas __ distance point to point and distance point to the deep line get up room as well as finish questions practice . As for the stages implementation cycle 1 as following :

a. Planning

before do study so researcher prepare necessary tools and materials _ during study namely :

1. Making Plans Implementation Learning (RPP)
2. Prepare sheet observation
3. Prepare tool get up room
4. Prepare questions exercise
5. Prepare grid question test daily
6. Prepare question test end cycle

b. Action

Actions taken For every meeting during the learning process going on consists from three part .

1.2 Research Results Cycle Second

a. Planning .

On cycles second researcher continue activity learning with material tree distance point to field . Cycle second done three times meeting and one test _ end

cycle . Before cycle second started so researcher prepare RPP, prepare sheet observation , make LKPD, compile question test end cycle .

b. Action

Activity For every meeting _

a. Early Activities

At the start teacher meeting _ participant educate discuss question test daily 1, then the teacher delivers title , goal learning , and stress to participant educate that material previously is knowledge a must prerequisite mastered For material to be studied next , as well give apperception . Then the teacher delivers that learning use method invention guided , meanwhile That participant students sit in groups and prepare tool necessary study _ in accordance LKPD instructions .

b. Core Activities

On cycles both teachers more emphasize Again that learning done _ No teacher centered however participant educate demanded find draft studied material _ Alone with using LKPD. Participant learn to sit in groups with different abilities _ based on results cycle repeats _ first . The teacher gives LKPD for each participant students and each participant educate do the appropriate

LKPD with existing instructions _ in LKPD with method discuss with Friend bunch . Teacher walks around monitor participant moderate student _ work on LKPD and guide participant experienced students _ difficulty in discuss questions in LKPD. Then participant educate told present results it works in a manner turns , and participants other students respond . With thereby participant educate more understand the material he studied .

c. Activity Closing

At the end meeting For monitor understanding participant educate then the teacher gives chance to participant learn what you want ask , and the teacher directs participant educate make conclusions , and give homework.

After finished meeting second on activity closing participant educate guided For make conclusion , then given know that meeting next held test end cycle (UH2).

c. Observation

Analysis results observation cycle two about activity Study with method invention guided .

2. Discussion

After done analysis of outcome data study about implementation learning with method invention guided happening increase in activity positive participant

educate , p This can seen from activity participant educate in practice self in do existing questions _ in a manner independent especially first in the cycle First with an average of 64.82%, cycles second say to 82.71%. Participant students who ask to the teacher when There is cycle difficulties _ First with an average of 9.26%, on cycles second increase to 12.35%. With he understood material learned by the participants educate so participant educate enthusiastic For present results it works , on cycles first 12.96, on cycle second increased to 14.82%. With method invention guided This participant educate Already start believe self in do the questions given , so participant's negative activity educate imitate friends _ experience decrease , on the cycle First with an average of 17.28%, on cycles second to 12.34%. Activity data participant educate can see in the attachment .

Learning with use method invention guided can increase results Study mathematics participant educate class XII IPA 1 SMA Negeri 1 Rambah . With applied method discovery guided in learning mathematics especially material dimensions three participant educate find Alone draft studied material _ so that participant educate more easy finish the questions given .

this _ can seen from results competency test analysis cycle First participant complete study _ in Study in a manner classic as many as 21 people (77.78%), cycle second increase to 24 people (88.89%).

According to curriculum 2013 regarding determination of SKBM for each eye lessons determined by each school and by groups of eye teachers lesson . While the SKBM limits on the eyes lesson mathematics in class XII IPA SMA Negeri 1 Rambah is 70.00, and completeness Study in a manner classic 80%. With thereby results study This Already experience increase , with This stated that learning mathematics especially on the material dimensions three with method invention guided can increase results Study participant educate especially the participants educate class XII IPA 1 State Senior High School 1 encroachment.

IV. CONCLUSION

Based on description and results study action on chap previously writer conjure up that :

Learning with method invention guided can increase mastery participant educate to material dimensions three . With mastery material tall so participant educate will

motivated For learn material with maximum maybe .

Learning with method invention guided can increase results Study participant students in class XII IPA 1 SMA Negeri 1 Rambah .

1. Suggestion

From discussion results study so recommended :

1. Research results This show that learning mathematics with method invention guided can increase understanding draft mathematics so that performance learning and motivation participant educate For Study mathematics the more increase .
2. Writer hope that the math teacher presumably can use method invention guided because basically _ invention guided This more enable and train independence participant educate For think and develop Skills intellectual participant educate .
3. Head school can expected encourage and facilitate interested teachers apply method invention guided in learning , with provide media incl tool adequate props . _
4. For other teachers to get take action continue study this is to be obtained comparison with what already _ determined in study this .

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