



Socialization of the Use of Geogebra Learning Media in Mathematics Subjects to Increase Student Creativity

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Abstract

Community service activities can be seen from the analysis of teacher needs in learning that can instill the creative thinking of elementary school students by using the Geogebra Media. The use of Geogebra on students can improve their skills and get better results. Activities carried out at SDN Jubelan 01 use the community development method which functions of preparation, introduction, socialization, training on the use of Geogebra and compiling creative thinking assessments, monitoring, and evaluation. The results of this activity that students' creative characters have been embedded by using Geogebra obtained an average of 85.08% very good category with an indicator of 91.20% of students trying new ways to resolve a problem, 94.30% of students using various media/sources to solve a problem, 83.30% of students ask about related material to get their ideas or ideas, 77.50% of students have a problem solving that is different from others, and 79.10% of students have many ideas and suggestions for a problem.. Therefore, the results of service activities in using Android-based Geogebra provide a visual experience for students to understand geometry material so that they can instill students' creative thinking in elementary schools.

Keywords: Geogebra, Creative Thinking, Media

INTRODUCTION

Covid-19 pandemic are various countries around the world have seen many changes in various sectors. For example In the previous year, there were restrictions on activities outside the home. However, this year the situation is better than the previous year. Activity learning to teach at school It has also been done face to face again. Of course, this makes students have to readjust the initial activities Learning done online has now changed to offline . Teachers have challenge How so that delivery learning to student still maximum, Because Teacher as element important in process learning. Besides That Another thing that teachers must pay attention to when teaching is paying attention character Which owned by each student.

Character education that is taught from an early age is very influential in the way students learn. In general, the level of creativity and learning achievement elementary school students is still very low. This results in one of the character values owned by students is also still low. When the character of a nation is fragile so Spirit get creative And innovate in competition Which strict will slack off (Utami & Fitriyani, 2017). Bereczki & Karpáti, (2020) put forward that student creativity depends on the teacher's experience. Therefore teacher must understand strategies for instilling students' creative character values. Although learning can already be done in the classroom, in the current era even teachers cannot loose in utilizing

technology. Technology has a positive impact and contribution to students in creating more teaching and learning activities conducive. On field education, technology utilized to develop innovative learning media (Afriani & Fitria, 2021). Use of technology which is increasingly sophisticated and can be accessed in various kinds of technology. Not only through computer just, but Also there is in technology other like smartphones Which moment This Already Lots used from various circles. Smartphones Also have excess For used as media learning.

As for knowledge Which role important in development knowledge knowledge and technology is mathematics. So one is needed mathematics assignments from an early age to develop thinking skills logical, critical, creative and systematic as well as deep problem solving abilities development technology And knowledge (Ilsa et al., 2020). On level school Basic mathematics lessons are focused on mastering concepts mathematics. The importance of accuracy in presenting mathematical concepts aims to ensure that students understand and interpret concepts with Correct (Suputra et al., 2021). Utilization technology in field mathematics has Widely used to visualize abstract concepts. Besides That with exists technology Which Already provided For add students' knowledge in using technology and making it easier for students to understand and solve the problems they face . On learning mathematics Which makes it easier student For understand And draw especially in geometry material, namely through application Geogebra .

Geogebra is a technology that supports learning mathematics in SD/MI (Pamungkas & Rahmawati, 2020). Application usage Geogebra can utilized as media learning mathematics For demonstrate or visualize concepts mathematical as well as as a tool to construct mathematical concepts (Japa et al., 2017). In Geogebra on smartphones there are tools for creating one get up room so that student can understand How form nets from a geometric figure, calculating the length of a line segment, calculating the volume of a geometric figure space, and more. Apart from that, students can also use it anywhere and When just. There is various benefit on Geogebra in learning Mathematics includes: 1) Producing geometric images quickly And thorough 2) There is animations And movement manipulative Which bida give experience visual 3) Take advantage of as evaluation For know picture geometry Which made Already Correct or Not yet 4) Makes it easy to check and shows the properties that apply to geometric objects (Kesumawati, 2017).

Based on analysis need Teacher in learning Which can embed character creative student elementary school that is with Geogebra . Use Geogebra students can also improve their skills and get results better. Wahyuni et al. (2022) states that the Geogebra application can used For explained or visualize concepts mathematics and as a medium for constructing mathematical concepts. By because That with utilize the application Geogebra in learning Geometry mathematics is very suitable in developing learning media mathematics, especially geometry material. Rasyid et al . (2022) states that Geogebra make learning happen more active and interesting.

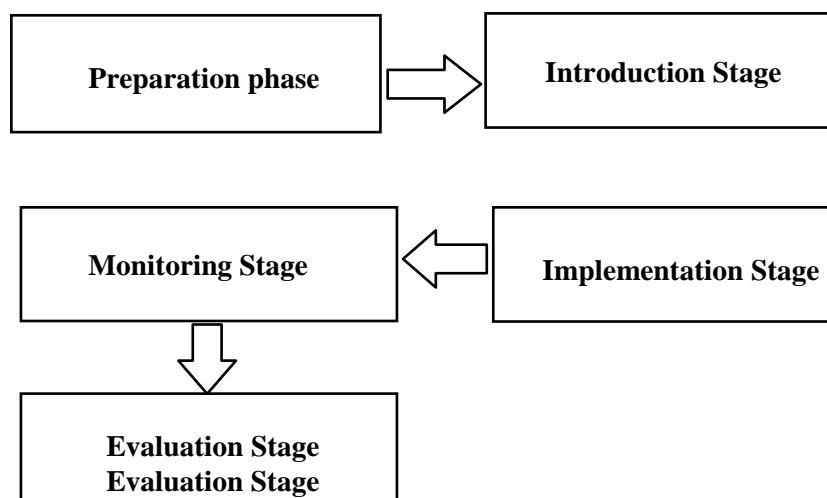
The aim of Community Service is that the PkM team provides introduction and strategies through learning resources in the form of Geogebra- based applications android. So that in using the learning application the party concerned must own smartphones as tool help in process learning. Android-based Geogebra learning is a process of combining resources Study mathematics Which can used When just. With utilization application Geogebra based android expected can give motivation student in learning mathematics geometry And embed level creativity student.

METHOD

Activity devotion to public This done in SDN Jubelan 01, Regency Semarang. Activity held with training utilization Geogebra in elementary school students. The stages of this activity include introducing Geogebra , use of Geogebra in geometry material, and assistance

to students when using Geogebra in learning. This aims to ensure that all Teacher And students class 05 elementary school N Jubelan 01 can utilise And operate application Geogebra so that in process learning Teacher can provide a variety of media in teaching students both online nor face to face.

Method of activities carried out in community service is community development by carrying out 5 stages. Preparatory stages that is with do survey to location And interview to student class 5 elementary school



Geogebra utilization program method can be seen in picture 1.

CONCLUSION (CLOSING)

This community service activity was attended by elementary school teachers and student class 5 elementary school. Objective from method This is give training learning using the Geogebra application . Use of the Geogebra application also helps the learning process take place. This is also possible at the same time increase quality Teacher in teach. A number of solution Which offered from Community service activities include: Increasing knowledge teachers in accessing technology, especially Geogebra. Increase knowledge students in use Geogebra in learning. Make it easier for students in understanding the material through Geogebra which can be used at any time and anywhere

Team Devotion to public Then give training The use of Android-based Geogebra for students aims to make students can use application Geogebra with Good moment activity Study . The mechanism for implementing community service activities is: First is introduction done with socialization about What That Geogebra , how to operate and the benefits of Geogebra for learning. Exposure material about Geogebra covers introduction application Geogebra, a number of feature Which it's in Geogebra , method make get up room on material geometry, and method understand the shape of spatial nets. Student requested For try open And make get up room Which guided by team PkM. On implementation activity This every student shared become 2-3 group, This is to minimize elementary school students carrying cell phones at school. The following is student data regarding the successful use of the Geogebra- based application android in secure character creative student during learning shown in the diagram circle on Picture 2.

Based on Figure 2, students' creative character has been embedded an average of 85.08% in the very good category. As for the explanation of the acquisition every indicator among them, as much 91.30% student try ways new For finish something problems; 94.00% student use various media/sources to resolve a problem; 83.30% of students asked about related material to obtain their ideas or concepts; 77.50% of students have a solution to a problem that

is different from other people; And as much 79.10% student have Lots idea And suggested to something problem. It can be seen that in each indicator of creative character most strong owned by student during learning is when student use various media or source For finish something problem with category very Good whereas indicators that most low And need improved is have solution something problem Which different from others by category good to improve it to very good category.

Activity Devotion with utilization Geogebra based android in accordance with the objectives achieved. Using this application makes it easier students understand geometry material because there is a feature for viewing nets. net all form get up room. So that student become more enthusiastic in learning and trying to discover new things that were previously unknown is known. One way to develop character education in schools is by utilizing advances in information and technology (Ulfah, 2020). Besides that learning with the help of Geogebra has an effect on creative character students (Ismunandar & Nurafifah, 2019). Use of Geogebra for elementary school students can followed up its implementation in learning as shaper character creative students.

CONCLUSION (CLOSING)

Based on results And discussion on activity devotion to the community concluded that in the training program on the use of Geogebra Android-based works well according to the target in embedding characters creative students in elementary school. This activity obtained an average of 85.08% with a very good category, namely 91.20% of students trying new ways to solve a problem; 94.30% of students use various media or sources to solve a problem; 83.30% of students asked about related material to obtain their ideas or thoughts; 77.50% of students have a solution to a problem that is different from other people; And 79.10% of students have many ideas and suggestions for a problem. Therefore, the results of service activities are in the use of Geogebra Android-based provides a visual experience for students to understand geometry material so that it can instill creative character in students at school base.

SAYING ACCEPT LOVE

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