TRAINING IN MAKING AND USING LEARNING MEDIA ANDROID-BASED AS A LEARNING SUPPLEMENT AT THE UNIVERSITY OF MATARAM

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ABSTRACT
Lack of student motivation in reading lecture books, modules, diktat, handouts, student worksheets and other references. Based on the observations made by the research team, almost all students have an Android mobile smartphone. Students prefer to read/open Android mobile smartphones compared to reading lecture books. The availability of learning media innovations based on Android mobile smartphones is not yet available . As a result, student activity and learning outcomes are still low. The purpose of this dedication is to provide training on the use of learning media based on Android mobile smartphones as a learning supplement. The Android mobile smartphone application can help students master lecture materials, especially for students who lack motivation in reading lecture books.

Keywords: learning, student, diktat

INTRODUCTION

The progress of Information and Communication Technology (ICT) in Indonesia is growing very rapidly, such as the use of the Android operating system. Android is a Linux-based smartphone operating system that includes operating systems, middleware and applications. Android provides an open platform for developers to create applications (Safaat, 2010). Android growth in Indonesia has reached 1500 percent, this is because the Android operating system allows users to get various applications and have various benefits (Rahmat, 2012). According to Lu'um (2017), "People are more likely to use mobile devices such as smartphones to access information, particularly smartphones based on the Android operating system. Android-based of mobile devices has become the choice of many people because having good performance with the availability of fair connection and application support with affordable price". The Android smartphone operating system has become a necessity in everyday life. Starting from children to adults are proficient in using all the applications found on Android smartphones.

Generally, Android smartphones are used for social media applications and have not been widely used to develop instructional media. Android smartphones have good potential if used as instructional media in learning (Arista and Kuswanto, 2018). Instructional media is a message (information) carrier technology that can be used for learning purposes (Schramm in Nuryanto 2015). Smartphone-based learning media is m-learning. According to Astra and Nugraha (2015) "a term of m-learning is based on using of a technological and mobile device, such as PDA, mobile phones, laptop, and tablet in learning". State m-learning is using of a mobile device to have the possibility which can organize learning anywhere and anytime. M-learning is one of models in learning environment considering mobile-technology devices, student mobility, and learning mobility.

The use of Android mobile smartphones is generally only limited to social media activities and has not been widely used to develop instructional media. Several studies have developed android-based instructional media, including Android Mathematics learning media applications on three-dimensional material by Purbasari 2013, this application is an

instructional media that contains material, sample questions, evaluations and a glossary. Development of an android-based physics e-book to ease students' physics learning and its influence on their learning achievement (Muqorrobin and Kuswanto 2016). Virtual Physics Laboratory Application Based on the Android Smartphone to Improve Learning Independence and Conceptual Understanding (Arista and Kuswanto, 2017).

Learning media based on android mobile smartphones can increase motivation, activity, and student learning outcomes in the Genetics course. Purbasari (2013) states that Android mobile smartphone is an alternative learning supplement that can provide opportunities for students to learn independently. Android mobile smartphones can help students master lecture materials, especially for students who lack motivation in reading lecture books, modules, dictates, handouts, student worksheets, and others. With the android mobile smartphone application, students can access lecture materials easily, as easily as accessing other social media.

Based on a situation analysis on Biology Education students at the University of Mataram, information was obtained that almost all students have an Android mobile smartphone. Students prefer to read/open Android mobile smartphones compared to reading lecture books. The availability of learning media innovations based on Android mobile smartphones is not yet available . Students are still constrained in understanding the learning material, have not used media and teaching materials that can make students learn independently, the delivery of learning materials is not delivered properly due to time constraints, students need innovative ways to design and present teaching materials and learning media .

The solution that the service team will provide to partners is assistance in designing and using media based on Android mobile smartphones . This service team is a lecturer who teaches and is an expert in the fields of learning media, learning strategies and designs and learning innovations. This is very helpful in solving partner problems. In addition, one of the research results of the service team in the form of android-based learning media is very helpful in providing product examples and directing service activities so that they can produce the desired product. Therefore, the training materials include the following three things: 1. Getting to know learning media 2. Designing learning media. The design of the training materials above is expected to improve some student abilities, including the following: 1. Able to design learning media 2. Able to create android-based learning media.

METHODS

The method used in this activity is the lecture method, and demonstrations are carried out by a team of lecturers at partner locations . Several activities will be carried out, namely:
1. Planning
   a. Notification of service activity plans to the UP3M STKIP PGRI West Sumatra unit and receiving a letter of assignment
   b. Contacting the Head of the Biology Education Study Program at the University of Mataram about the planned service activities that will be carried out by the lecturer team.
   c. Socialization of Service Activities to partner campuses by inviting
      Head of Study Program, lecturers and partner students.
   d. The preparation of the service program is based on the results of situation analysis, student analysis, material analysis and media analysis.
2. Implementation of service activities

    a. Formation and mentoring of student groups who can overcome difficulties.
    b. Training on the use of android-based media in understanding the concept of material.
    c. Increase students' knowledge about the development of appropriate learning media at this time.
    d. Demonstrating the use of android-based media in learning.
    e. Assistance in the use of media as alternative teaching materials

3. Observation and Evaluation

Observation activities are carried out directly by the implementing team. Observations in the form of the work of participants (student partners) on the use of alternative media in learning. The evaluation process is carried out to find out the shortcomings and obstacles in the implementation of service activities.

4. Reflection

Reflection is carried out jointly between the team and participants (partner students). This is done to find out the entire process of implementing activities.

RESULT AND DISCUSSION

Community service at the University of Mataram was held with the support of the Research and Community Service Unit of STKIP PGRI West Sumatra. This service is carried out in accordance with the vision and mission of STKIP PGRI West Sumatra. The implementing team in this community service activity provides direction or training to students in the use of android-based learning media as alternative teaching materials. The following are the findings and directions.

Table 1. Findings and Directions for the Implementation of PPM.

No.	Finding	Instructions in Training
1	Students experience limited facilities and infrastructure in learning	Provide solutions to overcome limitations in the learning process.
2	There is no media that can make students learn independently.	Providing information on the importance of making media and accompanying students to be able to study independently
3	Students have not been able to design android-based media	Provides steps in making android-based media

Based on Table 1. It can be said that from the findings of the existing problems, several steps have been taken as a solution. After the community service activities are held, it is hoped that they will be able to provide solutions and motivation for students to be able to develop android-based learning media in genetics courses and also in other subjects.

This community service produces several outcomes, including: Articles published in journals and Media that have been designed by students.

CONCLUSION

The conclusion from the results of the implementation of community service activities is that the importance of information and providing motivation to prospective teacher students regarding the development of Android-based media and teaching materials so that they can help students learn independently.

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