

INCREASING USE OF LAND CALCULATOR APPLICATIONS FOR HATIVE VILLAGE COMMUNITIES IN AMBON CITY

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Abstract

The millennial era has an impact that is digitally laden with the development of technology and information, so it needs to be utilized in improving self-ability and community empowerment. One of the efforts is to use an android application, Land Calculator to support community needs related to determining the boundaries of community-owned areas. Most people do not understand the use of this application. The purpose of the service in Hative village is to improve the ability and skills of the community in utilizing the Land Calculator application to obtain certainty about the boundaries of community-owned areas. The target subjects are heads of families who are domiciled in Hative village. The method used is direct learning through lectures and the practice of using the Land Calculator application in community-owned areas. The lectures were carried out with the intention that the public had initial knowledge about the Land Calculator application. After that, it was continued with mentoring during practice at community locations. The process of operating the Land Calculator application goes well. The results achieved show that there is a change in the level of understanding and enthusiasm among PKM participants. This is realized through the ability to independently use the Land Calculator application without having to be accompanied by a resource person.

Keywords: *PKM, Hative village, Land Calculator*

INTRODUCTION

The certainty of community rights in managing natural resources is in the spotlight both nationally and internationally. one of the factors that underlie the certainty of the right to manage natural resources, namely the certainty of area ownership, the areas discussed in this service are village areas, gardens, hamlets, forests, and areas that belong to the community and village (Papilaya, 2022). An understanding of the boundaries of a person's area (owned land, gardens, hamlets, forests) will be recognized if it is equipped with data, which in this case is a map of area ownership. A map is simply defined as a picture of an area where information is placed in symbols. Maps are needed to support regional data needs in providing information in the form of regional boundaries, infrastructure, roads, land use, etc. In addition, the map provides information about the potential of an area, and is useful for being able to be used as information material in planning and development in the village.

Mapping in a village area needs to be done as a form of implementation of Law Number 4 of 2011 concerning Geospatial Information and Law Number 6 of 2014 concerning Villages. Villages based on Law Number 6 of 2014, are legal community units that have territorial

boundaries that are authorized to regulate and manage government affairs, the interests of local communities based on community initiatives, origin rights, or traditional rights that are recognized and respected in the government system of the unitary state of the Republic of Indonesia. The boundaries of the village area stated in the form of a village map are determined as a regent/mayor regulation.

Advances in mobile phone technology in the current era provide many conveniences in supporting community needs related to mapping regional boundaries. This is of course supported by the availability of GPS applications in android phones so that they can be used as tools in making regional maps. However, the function of the tools in the Android cellphone, not many people are able to apply it. So that the need related to mapping the boundaries of the area often cannot be met because in people's minds there must be funds available so that the measurements will be carried out by officers from the land office. Based on the conditions that occurred, the team encouraged the team to provide training to the community to be able to use the applications available on Android phones to meet the needs they are currently facing without having to require a lot of funds, sophisticated equipment, or land officers.

A similar opinion is also expressed in the research results of Maulida et al., (2021) that the availability of applications can help all human efforts by saving time, cost and effort. In addition, according to Romney and Steinbart (2015) that to support a system to work optimally, system components such as humans, procedures (instructions), data, software, information technology infrastructure, internal controls and security are needed to achieve optimal results. For this reason, the purpose of this community service activity (PKM) is to provide understanding as well as training on the use of Tools in Android phones to the Hative community so that they can take advantage of smartphone application facilities in mapping community-owned areas without the need for excessive funds, time and energy.

IMPLEMENTATION METHOD

This community service activity is located in Hative village, Ambon City. The activity was carried out for 2 days. The participants involved were 15 people. PKM participants were selected by purposive sampling, where participants were natives of Hative village, aged 20-60 years, married, owned an area that did not have clear boundaries

Activity Stage

1. In presenting the material, PKM participants are asked to bring an Android cellphone and have downloaded the Land Calculator Application. The presentation of the material is given in the form of a lecture about the terms and understanding of the Land Calculator application, about maps, GPS, and the use of various features in the application, and how to run the application.
2. Discussion Process, in this process, PKM participants try to understand slowly each feature in their cellphone about GPS, Land Calculator, so that later the land calculator application can be used according to the desired needs and provide results in the form of regional maps.
3. Field practice, this method is a theory to application, where this training uses an android-based application by choosing an easy-to-use application, namely the Land Calculator in mapping an area. The stages of PKM are presented in Figure 1.

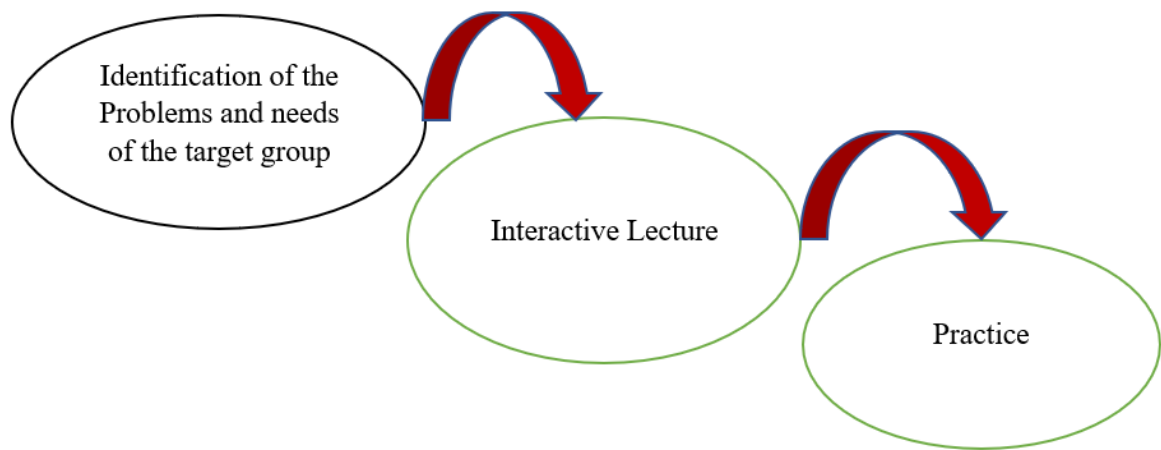


Figure 1. Stages of PKM in Hative Village

RESULTS AND DISCUSSION

The presentation of PKM material is presented in the form of PPT that is attractive to PKM participants so that it can be understood well. The material presented is about the Land calculator application, and also some basic concepts about maps, and GPS. This is intended so that PKM participants can understand and master the PKM material, before later being able to apply the features and work of the application system. The resource persons and PKM participants interacted with each other in a relaxed manner, and the resource persons ensured that all participants could receive the presentation of the material well. After that, it was continued with an explanation of how to operate the Android-based Land Calculator application to PKM participants. In this session, all participants paid close attention, while the resource persons tried to pay close attention to the PKM participants by accompanying each participant directly one by one when operating the features in the application optimally. This is done so that participants feel confident, and reduce the sense of confusion in the participants, besides that the resource persons can also directly see the ability of the community to accept and understand the material presented.



Figure 2. The Process of Presenting Materials by the PKM Team
Image Source: Private Dock (2021)

Practice and Activity Assistance

This hands-on practice and mentoring was carried out after lectures and application demonstrations on the same day. However, the practice is carried out in an area belonging to one of the PKM participants. During the presentation of the naras umber application, he also shared a simple guide in the process of installing and using the application in the form of a SOP for the installation and use of the land calculator application. It is hoped that the public will find it easier to understand because they have a guide, and feel enthusiastic about wanting to learn about the work of the application. Huda & Sukadiono (2021) explained that mentoring activities for training participants were able to increase the enthusiasm of participants which encouraged them to switch from a conventional approach to a digital approach. The practice process for the land calculator application is presented in Figures 3 to 11.



Figure 3. LC Application Display

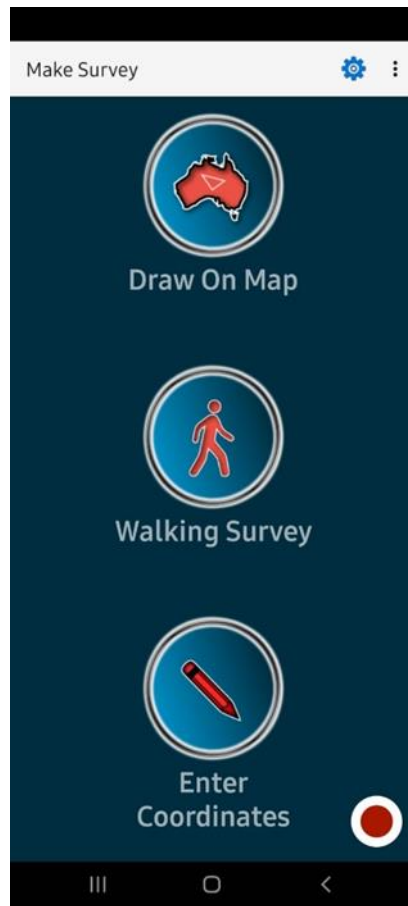


Figure 4. Land Calculator Main Menu

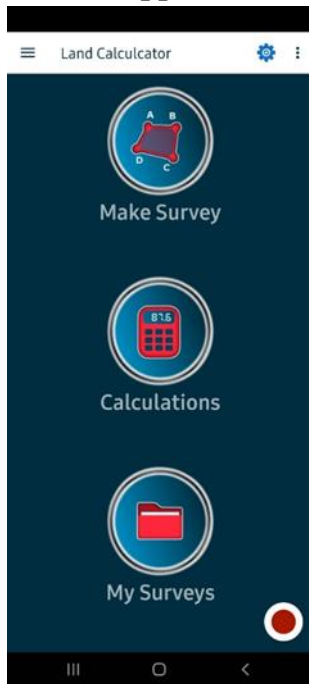


Figure 5. Sub Menu Make Survey

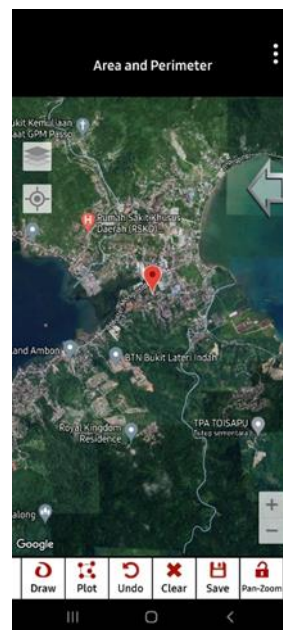


Fig.6. Example of the Drawing layer screen display



Figure 7. Walking Survey Sub Menu

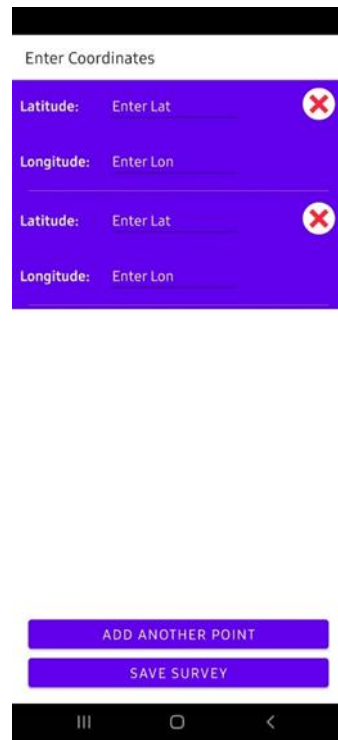


Figure 8. Sub Menu Enter Coordinates



Figure 9. Calculations. sub menu

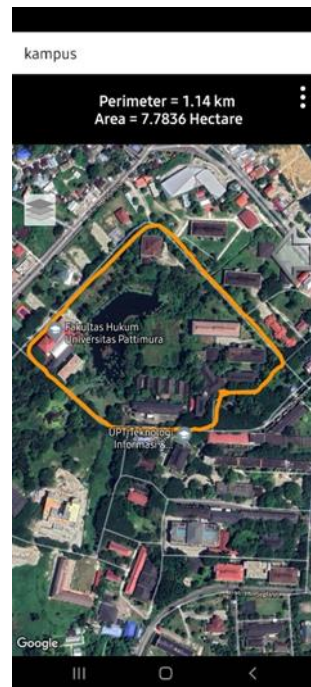


Figure 10. Example of area mapping results



Figure 11. Backup/share data menu - Restore/Import Data

Inhibiting factors in presenting PKM material

- Community Knowledge About Land Calculator Application is Low

100% PKM participants have not known or heard about this application before. In addition, most of the participants did not understand the stages in mapping an area, and the importance of having knowledge from applications about how easy features work in Android. This has an impact on the ability within the community to be able to proceed with applications that are already owned in solving problems faced so far,

- Willingness to change

This application already exists on every smartphone owned by PKM participants, but people tend to be reluctant to adjust to the progress of the times, so they have difficulty in transforming to a new and developing system that is already available on cellphones.

- Unknown Apps

PKM participants are not familiar with the Land Calculator application, because they find this application difficult, and there is no assistance in teaching the various features of the application to the people present. Because of the above, this service program offers a solution to conduct education in the form of strengthening theory (understanding) and practice (skills) for the community which are currently very needed.

Evaluation of PKM activities

PKM activities in Hative village can be said to be very supportive of the needs of the community that are currently being faced. So that the results of the evaluation of activities include:

- a. There has been a change in the level of understanding, from those who do not understand how to map the area, to understanding
- b. Knowledge and skills using applications in smartphones Land Calculator 100% understand.

- c. Can produce maps according to the training carried out, so that self-confidence in the ability to understand similar applications on Android grows in the Hative community.
- d. Problems related to regional boundaries in Hative village can be solved very well, without having to spend large funds, experts, and a long time

CONCLUSION

Based on the description of the results and discussion of the PKM program above, it can be concluded that the problems can be solved according to the ability of the community. In addition, there was a change in the level of understanding and enthusiasm among PKM participants. This is realized through the ability to independently use the Land Calculator application without having to be accompanied by a resource person.

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