



## USING ONLINE-BASED LEARNING ASSESSMENT APPLICATIONS TO IMPROVE THE EFFECTIVENESS OF DISTANCE EDUCATION

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### ABSTRACT

*In each learning process, a teacher must carry out a learning assessment to measure students' ability to the learning given. For learning activities carried out online, a learning assessment is also needed for each of these online learning activities. This activity aims to improve the teacher's ability to apply various online assessment media. Activities were carried out in 8 meetings for training and delivery of material using the online assessment application. The activity results showed an increase in the teacher's ability to compose questions based on HOTs and Thematics. Apart from that, there has also been an increase in the knowledge and ability of teachers in making and operating online learning assessment applications.*

Pada setiap proses pembelajaran, guru harus melakukan assessment pembelajaran untuk mengukur kemampuan peserta didik terhadap pembelajaran yang diberikan. Untuk kegiatan pembelajaran dilakukan secara online maka dibutuhkan pula assessment pembelajaran untuk setiap kegiatan pembelajaran online tersebut. Tujuan kegiatan ini adalah untuk meningkatkan kemampuan Guru dalam mengaplikasikan berbagai media assessment online. Kegiatan dilaksanakan dalam 8 kali pertemuan untuk pelatihan dan penyampaian materi penggunaan aplikasi assessment online. Hasil kegiatan menunjukkan adanya peningkatan kemampuan guru dalam menyusun soal berbasis HOTS dan Tematik. Selain itu juga terjadi peningkatan pengetahuan dan kemampuan guru dalam membuat dan mengoperasikan aplikasi assessment pembelajaran secara online.

## INTRODUCTION

The development of information technology worldwide, particularly in Indonesia, demands adjustments in all fields, especially in education. Indonesia is the country with the largest number of internet users among ASEAN countries. According to APJII, of the 264 million total population in Indonesia, there are 171.17 million people or the equivalent of 64.8% of the total population in Indonesia, who are active internet users. This number beat Japan and made Indonesia one of the Top 5 internet users in the world.

There are 171.17 million people in Indonesia, or approximately 64.8% of the total population. This number beat Japan and included Indonesia in the World's Top 5. Internet users in Indonesia are the younger generation in the age range between 15 to 19 years (APJII, 2020). From this age range, students use the internet the most. It means that the internet needs to be monitored and directed to utilize the internet towards more positive things and uses, such as being used in the learning process.

Innovations in the world of education continue to be carried out in line with technological developments, one of which is the government's decision to organize National Examinations with an online system to reduce the use of paper. Information and communication technology has an important role in education today, especially in the learning process (Rusman, 2011). The development of appropriate information and communication technology-based applications is very supportive in improving the quality of learning. Then, the solution is to present technology and utilize the internet network in collaborative learning to access it widely, anytime and anywhere.

Various ICT solutions have played a role in improving education and learning community services. One that is quite popular is online learning (online learning) or electronic learning (e-learning) (Komang, 2010). The online learning model is widely applied to distance education (PJJ) because it offers flexibility and flexibility (Fuady, 2016). Online learning can overcome various problems, such as distance, time, costs and limited teaching resources (AECT, 1977). Even so, a number of issues still need special attention, one of which is the limitations in carrying out assessments (evaluations) in online learning.

Creating an exciting learning situation takes a learning media that can make students interested in learning, as well as learning assessment activities. Assessment activities tend to be feared by students. However, even learning assessment activities can be fun by utilizing online media assessments that can be done only with a smartphone. Nowadays, smartphones have proven to be a very popular device with many people because of their benefits that can support various

activities ranging from entertainment business activities to those related to education (education), learning processes, and learning assessment (Rendik, 2014).

The teacher evaluates learning at the end of each subject matter or the end of each semester. This learning assessment is used as an evaluation tool that measures students' abilities. The limited ability of teachers to apply the use of technology sometimes becomes an obstacle to online learning.

There are currently many learning assessment applications available that teachers can use. Online learning, also known as distance learning, must be carried out by teachers due to the COVID-19 pandemic. Using this online-based assessment application can assist teachers in giving tests, quizzes and exams more easily so that the online learning process can take place effectively, efficiently and with higher quality (Anjani, 2016).

As one of the tertiary institutions that organizes the teacher program through a community service team, Universitas Negeri Padang wants to help solve problems that occur in society, especially in the field of education. Through this community service activity, the community service team wants to train teachers regarding using online-based assessment applications to increase the effectiveness of distance education during this pandemic.

The community service team partnered with the SMA Economics MGMP in Bukittinggi City on this occasion. Bukittinggi, one of the cities with the best education in West Sumatra, has a high school equipped with various complete learning support facilities. High schools in Bukittinggi are also often used as pilot projects by other high schools in West Sumatra. Thus, when the COVID-19 pandemic emerged as a problem that disrupted all activities, including learning activities, high schools in Bukittinggi City successfully implemented online learning activities. It is, of course, supported by the geographical location of the city of Bukittinggi, which has a strong internet network and the skills of teachers who are more knowledgeable about carrying out online learning.

However, online learning, which has been implemented well so far, still leaves several obstacles and problems that require solutions. Based on initial observations with the chairman of the Bukittinggi City Economic MGMP, the main obstacle for Economics teachers in Bukittinggi City is currently related to the problem of online learning assessment (evaluation). With online learning currently being implemented, teachers must work extra hard to carry out assessment activities to obtain unbiased assessment results. Compiling the instrument questions used in online learning assessment (evaluation) activities is a major problem. It, in turn, raises other problems, such as the

difficulty of accommodating student discipline in submitting assignments on time. Then, many assignments resulted from "copy-paste" from the internet and feedback between teachers and students regarding assignments that did not go smoothly.

From the explanation above, the community service team wants to work with the MGMP Economics partners of the City of Bukittinggi to provide solutions to the problems currently being faced. So we want to carry out community service activities titled "PKM Training on the Use of Online-Based Learning Assessment Applications to Increase the Effectiveness of Distance Education for High School Students in the City of Bukittinggi". With this training, the quality of learning can be improved to be more effective and efficient because it can be done anywhere and at any time, especially for distance education during this pandemic..

## METHOD

Implementing this community service activity is using the training and mentoring method in using the Proprof application to carry out online learning assessment (evaluation) activities according to partners' needs. The parties involved and contributing to the implementation of this program are the community service team, resource persons related to the use of the Proprof application, resource persons related to making good questions, and community service partners, namely the Economics teacher in the City of Bukittinggi. Partners here have a very important role in providing places and training facilities.

The stages in the implementation of this community service are:

### a. Pre-training activities.

In this activity, discussions will be held with the management of the Bukittinggi City High School MGMP Economics regarding the implementation of the activity. This discussion includes the location of the activity, which is expected to have an internet network that can be accessed by all activity participants so that if it is not possible to do it face-to-face or face-to-face, this training activity can be carried out online with the zoom application etc., run-down/activity schedule including participants.

### b. Material delivery activities

In this activity, the teacher will be given some material, namely: 1) The basic concept of learning assessment, 2) The concept of good problem development, 3) Introduction to the Proprof application. The materials above will be delivered by competent presenters accompanied by examples of use and questions and answers.

### c. Kegiatan pelatihan.

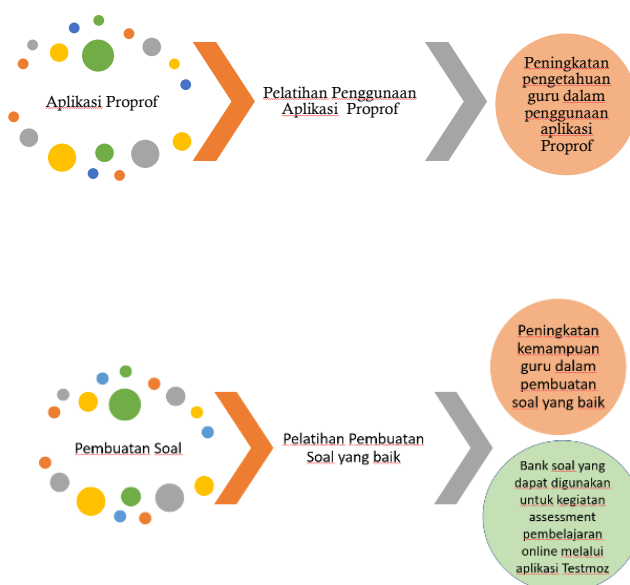
After the delivery of the material is complete, each teacher is tasked with making an assessment based on the application that has been trained. This assessment training is divided into several small groups. This training will also be carried out under the supervision and assistance of the community service team and resource persons.

### d. Learning Practice

Each teacher will practice the knowledge that has been obtained regarding the use of the Proprof application. An example of an assessment completed will be displayed, and other participating teachers and resource persons will provide suggestions and input.

### e. Activity evaluation

At this meeting, the teacher, his team, and resource persons will evaluate the activities and plan for the next stage



## RESULTS AND DISCUSSIONS

The target audience for this community service activity is the high school Economics MGMP teachers in the City of Bukittinggi. The training carried out is expected to increase teachers' abilities in compiling HOTS-based and thematic economic questions and to be able to operate online learning assessment applications to support distance learning.

The teachers who participated in community service training activities were teachers who taught economics subjects in the City of Bukittinggi.

The training activities carried out for Economics Teachers in the city of Bukittinggi can be described as follows.

### 1. Preparation

Coordinate with the chairman and management of the MGMP for the City of Bukittinggi. This meeting will discuss when the schedule and place are suitable for

training and mentoring and whether to choose a Zoom meeting as a media for carrying out activities because there are restrictions on community activities during the Covid-19 pandemic. In addition, participants will also be determined to consist of approximately 20 teachers. Who is a representative of the city of Bukittinggi? Economics teachers from various high schools in the city of Bukittinggi.

## 2. Activities

Activities carried out in the form of delivering materials and training/workshops. The types of activities that have been carried out can be seen in the table below:

**Table 1. Community Service Activities**

No.	Topics/Activities	Speaker
1	Technical Explanation of the Teacher Assistance Program	Menik Kurnia Siwi S.Pd.,M.Pd
2	HOTS-based learning assessment	Tri Kurniawati S.Pd.,M.Pd.
3	Competency-based learning assessment	Tri Kurniawati, S.Pd.M.Pd.
4	Presentation of the assignment of the preparation of learning assessments	Nita Sofia, S.Pd.,M.Pd.
5	Canva's E Module learning app	Bayu ,S.T
6	Learning assessment application "Proprof"	Mentari Ritonga, S.Pd.,M.Pd.E
7	Presentation on the assignment of making an online learning assessment application	Mentari Ritonga, S.Pd.,M.Pd.E
8	Guidance and Practice of Using Online Learning Assessment Applications	Bayu ,S.T
9	Evaluation of online learning assessments	Rita Syofyan S.Pd.,M.Pd.E
	TOTAL	<b>37 Hours</b>

This community service activity can be carried out properly and according to plan. Participants were satisfied with the new knowledge and understanding they gained from the community service activities. At the end of the activity, the following results were obtained:

- Quantitatively, this activity was attended by many school economics teachers who are members of the SMA Economics MGMP in Bukittinggi City.
- Qualitatively, the teachers have gained knowledge of designing and compiling HOTS-based and thematic economic questions and can compile and operate online assessment applications.

This community service activity is divided into several stages according to the theme and stages of material delivery. The material presented in this activity included how to compose HOTS-based and thematic economic questions, followed by the teacher's workshop on making economic questions. The second main material is the submission of the utilization and use of online applications for learning assessment, followed by workshops and presentations of work results by teachers on making online assessment applications.

During the presentation regarding the preparation of HOTS and thematic questions, the high school economics teacher conveyed the questions they had compiled. Each of the teachers from the SMA has succeeded in creating a set of HOTS-based questions, which are made in the form of multiple choices and descriptions. From the results of the discussion, it is known that the level of questions prepared by the teacher includes HOTS-based questions with processed data showing that the distribution of cognitive levels that teachers can measure through the questions they compose is 90% still in the cognitive domain C4, and 5% in the cognitive domain C5 and another 5% are still at the C3 cognitive level. The data above shows that teachers can and have succeeded in compiling HOTS-based questions.

Even though they have shown good results, several things become obstacles for the teacher in compiling and answering the HOTS questions presented during the discussion. Some of the obstacles felt by the teacher included the teacher needing to learn more about composing sentence redaction in preparing HOTS questions. In addition, students usually tend to be too hasty in working on questions, so when working on HOTS questions, they often choose the wrong answers because HOTS questions have many distracting answers, and students also have to understand concepts. Hence, the teacher has to be extra extra to provide a complex concept understanding. Therefore, the teacher will start applying HOTS questions when giving assignments or homework, then in midterm and final semester exam questions so that students are used to facing HOTS questions. If you are used to it, later students will be able to penetrate all forms of exams that require HOTS questions.

According to Purwanto (2010), internal and external factors influence student achievement. Internal factors come from within students, such as intelligence, talent, learning strategies, motivation, attitudes, interests, self-esteem and physical and mental conditions. External factors come from outside the student's self: family conditions, social support, learning facilities, learning environment, opportunities, teachers and teaching methods. By making HOTS questions, the

teacher will improve student abilities and learning achievement.

Meanwhile, for the preparation of the learning assessment application, the teachers brought out their creativity to each other to display interesting learning evaluations for students. Teachers are also required to be able to use various features in the Proprof online application to compile questions and assess them online. The teachers were very enthusiastic about the delivery of this material because it was very interesting and easy to apply and could provide direct assessment results so that teachers and students could find out the results of the questions being worked on. Of course, it also helps ease the teacher's work in correcting student work, which is quite time-consuming, and the results of this evaluation also motivate students in learning because it can produce certificates of learning outcomes that can be conveyed to their parents and compared to their friends.

## CONCLUSION

After carrying out training and guidance regarding online learning assessment applications, teachers must often practice and update their knowledge regarding technological developments. Utilizing technological developments allows the learning process to occur effectively and be fun. The use of applications can also ease the teacher's work in preparing and correcting student learning outcomes while reducing the use of paper and other resources.

Given the magnitude of the benefits of community service activities for the community, then it is necessary to:

1. Improving the quality of learning is closely related to teacher competence and creativity. Activities like this will increase teachers' competence and creativity, so it is hoped that various parties will continue to develop and support the implementation of this kind of activity.
2. Teachers should start using online applications in learning so that students can learn anywhere at any time and can increase student learning motivation.

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