



Improving Learning Effectiveness Through Inshot and Screencast-O-Matic Practices for SMP/MTs Science Teachers in Yogyakarta

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Abstract. This community service aims to increase the effectiveness of learning for science SMP/MTs teachers in Yogyakarta by selecting, designing, implementing online learning media to utilize information technology and technology (ICT) in line with the development of the Industrial Revolution 4.0 due to the Covid 19 pandemic. The training is carried out in the form of workshops conducted online which were attended by science teachers at SMP/MTs in Yogyakarta from May 1 to 8, 2021. The training materials included an overview of inshot and screencast-O-Matic (SOM), the introduction of features on the Inshot and SOM applications, training make videos using inshot and SOM applications, then practical guidance. According to the pretest and posttest analysis, there was an increase in participants' knowledge regarding knowledge of using Inshot and SOM, the introduction of features in inshot, and SOM and how to apply them in the practice of making videos. This program is thought to be appropriate for the participants' needs. This is determined by a questionnaire given out after the course. 90% of attendees hoped to learn how to use the inshot programs to create short videos for online learning. Meanwhile, 10% of participants stated that they wished to learn more about the Inshot and SOM applications so they could add alternative media to their online learning. Through this training, we believe that teachers can be creative and innovative when creating online learning media; so that learning competencies can be achieved well even when they are not learning in person.

Keywords: Inshot · screencast-o-Matic · science teachers

1 Introduction

One of the impacts of the Covid-19 pandemic on education is that it necessitates the continuation of teaching and learning activities even while students are at home. As a solution, educators must create innovative learning materials by employing online media (online). This is in response to the Republic of Indonesian Minister of Education and Culture's decision to implement educational policies during the Covid-19 emergency period as outlined in Circular Letter No. 4 of 2020.

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The COVID-19 pandemic has caused extraordinary changes that appear to be “forcing” education at all levels to transform and adapt in order to learn from home using online media. This is not a simple task as it is not yet completed. The difficulty with education is that the learning method, as well as the criteria and quality of the learning outcomes, are not yet standardized.

Online learning incorporates technology, allowing students to work on multiple projects and make decisions at any given time. One of its objectives is to give students access to the appropriate answers and extra resources that can be discovered at any time so they can make the most of their online decisions [1]. The most notable aspect of online learning is how flexible it is for both teachers and students, especially when setting up schedules for online lessons from any location. [2].

Utilization of information and communication technology (ICT) in online learning in education is a necessity [3, 4] First, computer technology, the internet, smartphones, tablets, and other digital devices have developed rapidly. The current generation uses these tools more to access information than books. Internet users in Indonesia reached 130 million people with details of 67.2 million people (47.6%) accessing from smartphones; 2.2 million people (1.7%) access only from computers. Meanwhile, world internet users reached 3.2 billion according to Global Internet Access from Facebook (2016) [5].

For this reason, in the future, the use of ICT or often known as Information Communication Technology in learning, especially science, must continue to be improved. The use of ICT enables people to transcend temporal and spatial limitations. Information can be exchanged between people at any time, as desired, from and to many locations throughout the world. By offering online learning resources that can be accessed at any time and from any location, this advancement in the field of ICT offers the Indonesian educational system a chance to boost the dynamics of learning activities.

One of the learning media that can be presented using internet technology is video. Video is a learning media that can display audio and visual information at the same time. Therefore, videos can facilitate the learning process optimally for both visual and auditory types of learners. The use of video as a learning medium will be more interesting for students in understanding the material. With the advancement of science and technology, nowadays, videos can be accessed via smartphones, which almost everyone has. With smartphones, learning materials in the form of videos can be accessed anytime and anywhere.

Based on a brief interview conducted by the service team to deliberation for science subject teachers in Yogyakarta, it was concluded that most teachers have not developed online learning resources. The subject matter is delivered using only WhatsApp groups and assignments. So far, video as a learning media has never been given. This is because there is an assumption that making videos is a complicated job and takes a very long time. In addition, there is also the notion that making videos requires very expensive equipment. This is not the case, making learning videos can be done by anyone (it doesn't require high IT skills), and can be made without high costs.

The condition of the teachers who will become the target audience in this service, namely the science teachers in Yogyakarta, shows a situation that requires special attention. Interviews conducted by the service team to the head of the natural sciences teacher

consultation showed that the ability of science teachers in the ICT field was relatively lacking. This is due to the lack of skills and training related to the use of ICT for science teachers.

Based on this analysis, a community service work is offered for the application of video-making practices using the inshot and screencast-o-matic applications to increase the effectiveness of learning for SMP/MTs teachers in the Yogyakarta during the Covid-19 pandemic.

2 Materials and Methods

This community service work is carried out in the form of workshop activities. The workshop was held using the zoom meeting application on Saturday, May 1, 2021, followed by independent assignments until May 8, 2021. The workshop was attended by 50 science teachers for SMP/MTs in Yogyakarta who were members of the Subject Teachers' Consultation (MGMP). The workshop was opened by Suhandoyo, M.S., and material presentation delivered by Ir. Ciptono, M.Si. About the story board, Tatag Bagus Putra Prakarsa, S.Si., M.Sc. on the use of inshot, and Yunita Fera Rahmawati, S.Pd., M.Sc for the application of screencast-o-matic (SOM).

The activities on the first day were carried out for 6 h with details of the implementation of the pretest, giving materials, discussions, posttests, questionnaires. Furthermore, the practice and mentoring of making videos using the inshot application and screencast-o-matic (SOM) were carried out for seven days.

3 Result and Discussion

3.1 Pretest

The pretest was conducted to determine the initial knowledge of the technical training participants in the preparation of online learning media. Based on the results of the pretest, it was found that 80% of the participants answered that they did not know the inshot application as a learning medium. This shows that most of the participants have never used inshot (Fig. 1).

The second pretest question was to find out whether the trainees knew all the features contained in the inshot application. Of the 50 participants who answered, it was found that 12% of participants understood the features in the inshot. Thus, it can be concluded that most of the participants do not know how to use the features in the inshot application (Fig. 2).

The next pretest question in the second application is screencast o.matic (SOM). As many as 84% of participants answered that they did not know the application, as was the case with the previous application. Participants said that they had never used learning videos other than taking from YouTube because of time problems and difficulties in making videos as learning media. This shows that participants need the training to make videos that can be made in a short time and are not difficult to make (Fig. 3).

As many as 94% of the technical training participants for the preparation of online learning media answered that they did not know the features of the screencast-o-matic

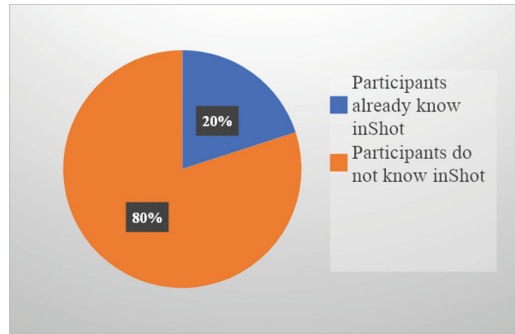


Fig. 1. Response of the participants initial knowledge about the inshot application

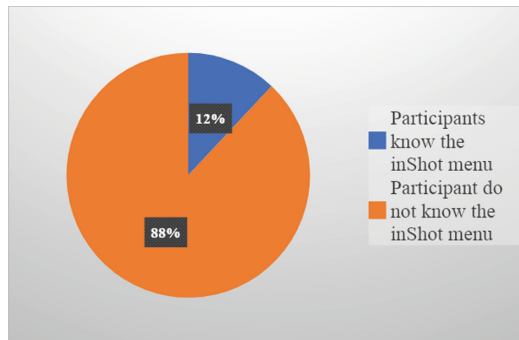


Fig. 2. Response of the participants initial knowledge about the inshot application

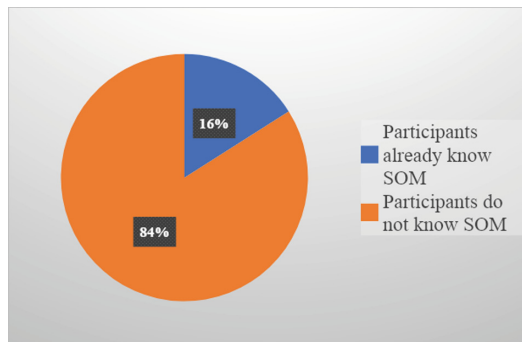


Fig. 3. Response of the participants initial knowledge about screencast-o-matic (SOM) applications.

application. Only 6% of participants know the features on screencast-o-matic and how to use them, although in the previous question there were 16% of participants who already knew about this application. So it can be concluded that participants need this training to assist in providing material to students (Fig. 4).

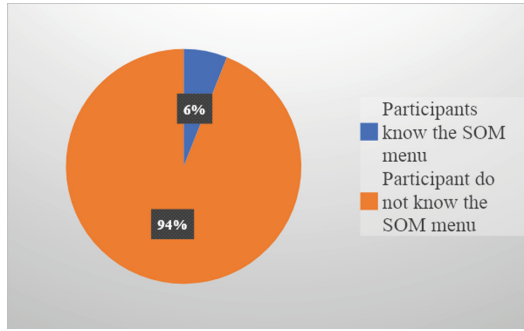


Fig. 4. Response of the participants prior knowledge about features on the screencast-o-matic (SOM).

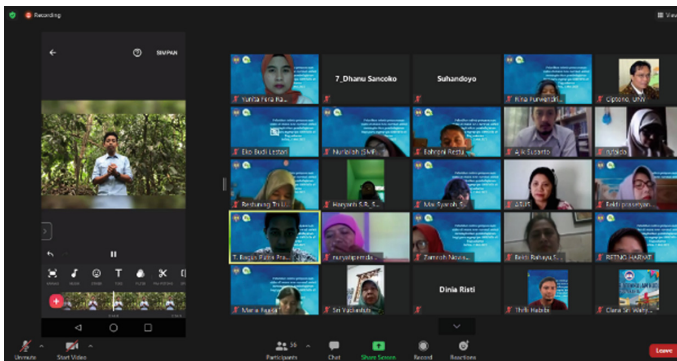


Fig. 5. Presentation of the material for the inshot application and screencast-o-matic training participants.

3.2 Material Giving

Materials about learning online learning media during the Covid-19 pandemic are presented using PowerPoint assistance. The material presentation was carried out by Ir. Ciptono, M. Si with the topic of compiling online learning videos. Followed by training using the inshot application by Tatag Bagus Putra Prakarsa, S.Si., M.Sc. And screencast-o-matic (SOM) by Yunita Fera Rahmawati, S.Pd., M.Sc. In addition to the material presentation, at the end of the event all participants received a soft file of material from the presenters (Fig. 5).

3.3 Discussion

Participants were allowed to ask questions and the presenters answered questions from participants. Two questions were asked by the participants, namely (1) can the inshot application only be used on mobile phones? (2) how to use screencast-o-matic application if the time used is more than 15 min? The first question was answered by Mr. Tatag Bagus Putra Prakarsa that the inshot application can be used on laptops and mobile phones. As

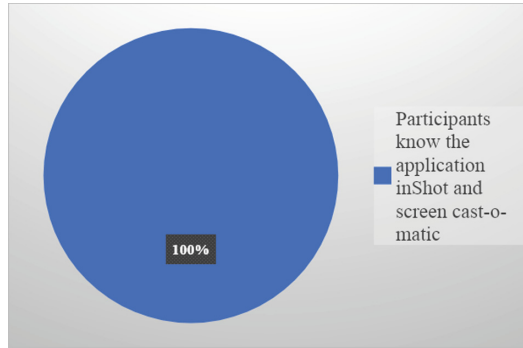


Fig. 6. Response of the trainees' initial knowledge about the inshot application.

for the second question, according to Mrs. Yunita Fera Rahmawati, if they will use the SOM application for more than 15 min, participants choose a premium (paid) account.

3.4 Posttest

The posttest was conducted to determine the final knowledge of the participants after participating in the technical training of online learning media. Based on the posttest results, it is known that as many as 100% of the participants know the application of inshot and screencast-o-matic (SOM). There was a very high increase in the number of participants who answered *tofu* compared to the pretest, namely for inshot from 20% to 100%, while for SOM from 16% to 100%. This shows that more participants are more familiar with inshot and SOM after the training (Fig. 6).

Participants also demonstrated excellent knowledge of features in inshot and SOM and how to use them. This is shown from the results of the posttest, which is 96% of participants answered that they understand well what features are contained in the two applications and their respective functions in making videos. This number increased significantly from the results of the pretest which showed 12% of participants who knew the inshot and 6% of the SOM application (Fig. 7).

As many as 96% of the technical training participants for the preparation of online learning media answered that they understood the inshot and SOM applications and what features each application had. They already know that the material they convey to students can be made in media with sound and more attractive images. The percentage of participants who understand the use of the two applications increased by 84% for inshot and 90% increase in SOM applications compared to the pretest for these questions.

The change in the number of participants who answered that they did not understand the two applications compared to the posttest could be interpreted as an increase in participants' knowledge after attending the training. The change data is visualized in Fig. 8.

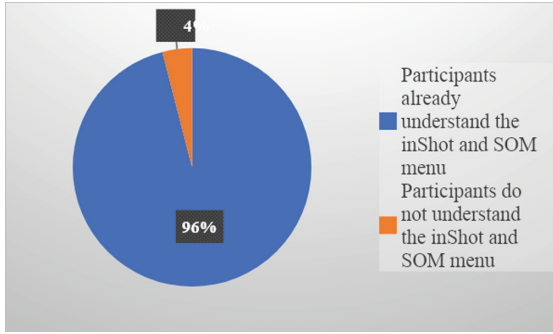


Fig. 7. Diagram of the trainees' final knowledge of understanding features in inshot and screencast-o-matic (SOM).

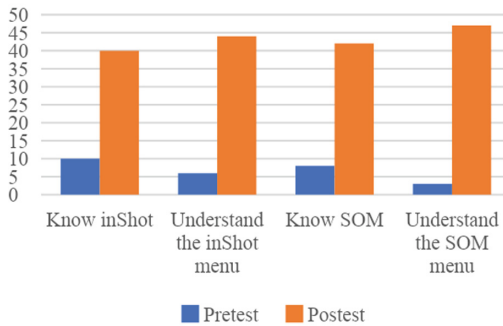


Fig. 8. Comparison Diagram of Initial and Final Knowledge of Training Participants of Online Learning Media Learning Technical Training with inshot and SOM.

3.5 Practice Making Videos

After receiving training materials on storyboard preparation, all participants applied the training materials by making videos using the inshot application and screencast-o-matic (SOM) according to the material chosen by each teacher. During the making of the video, the presenters served discussions via WhatsApp regarding technical constraints and difficulties faced by participants. After one week the participants worked on the task of making a learning video and a review was carried out by the community service team so that the participants could perfect it. All participants who have completed the task of making the next video will receive a certificate which can be downloaded via the link <https://drive.google.com/folderview?id=16B8Uj3UF7wOLX3savKRv1DNaXc4kgT6>.

3.6 Evaluation

Evaluation to determine the level of success of the program activities that have been implemented. This evaluation is carried out by conducting a descriptive analysis of the

questionnaires that have been filled out by the training participants. Based on the participants' responses, it was found that the application of video-making practices using the inshot application and screencast-o-matic for SMP/MTs teachers in Yogyakarta, which was held on May 1–8, 2021, was considered suitable for the needs of the participants. This is known through a questionnaire distributed at the end of the training. 90% of participants hoped to know how to make videos using the inshot application and screencast-o-matic (SOM) to carry out online learning. The other 10% took part in the training in the hope of improving their ability to make videos in a simple way.

This training also received a positive response from participants who are science teachers at SMP/MTs in Yogyakarta. As many as 100% or all the training participants stated that the event was in line with their expectations. All participants also stated that the material obtained will be applied in the learning process in the classroom and is useful for solving problems in the class being taught.

According to the responses from the questionnaire, participants stated that the facilities provided by the organizers were appropriate to support the training process. The tasks given in this training are also considered to be able to help participants better understand the use of inshot and screencast-o-matic applications for online learning.

4 Conclusion

The practice of making videos using the inshot application and screencast-o-matic (SOM) to increase the effectiveness of learning for the Natural Sciences Teacher Consultation (MGMP) in Yogyakarta has been carried out with satisfactory results. Training participants gain new knowledge and insights regarding the creation of online learning media and hope to be able to implement it well during the pandemic. Furthermore, all participants were interested in implementing video making using inshot and screencast-o-matic when teaching. Through this training, it is hoped that participants can have creativity and innovation in implementing online learning so that learning competencies can be achieved well even though learning is not done face-to-face.

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Conceptualization (Y.F.R., C., and T.B.P.P); design (S, T); collection of data (Y.F.R); analysis and interpretation of data (Y.F.R and T); resources (S); funding acquisition (C and T); writing and revision of paper (Y.F.R and T.B.P.P).

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