

Enhancing Teaching Quality of Teachers through Open Broadcaster Software

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Abstract

The transition of learning system from offline to online due to Covid-19 caused the teachers at MIS Ar Rasyid feel surprised and felt they must be able to use online media for their teaching learning process. This activity aims to improve the competence and professionalism of teachers at Madrasah Ibtidaiyah Ar Rasyid jalan Besar Tadukan Raga, STM Hilir-Deli Serdang in using Open Broadcaster Software. There are 10 teachers involved in this activity. This program is carried out through lectures, workshops, question and answer methods, and demonstrations. The lecture method is used to describe the basic concepts of OBS, demonstrations are carried out for direct practice of using it followed by the discussions about problems in the OBS steps, workshops are held to train and assist teachers. They design learning videos based on one basic competency. The results achieved from this activity are that the teachers are very enthusiastic, respond so positively and are very motivated to make learning videos through OBS. Teachers are also increasingly competent and professional in teaching using OBS to support the success of their classroom interaction.

Keywords

learning media; open broadcaster software; interactive media; learning process; teacher quality



I. Introduction

The whole world is currently experiencing a transition period from the Covid 19 pandemic to normal times again. From the data obtained, it was found that hundreds of thousands of people died due to the attacks carried out by the Corona virus. Restrictions are also carried out to prevent transmission that occurs in the wider community, both physical and social distancing. This policy has a very bad impact on all aspects of people's lives particularly in education. This shift unconventional learning practices to digital also forces a teacher as a teacher to quickly adapt and use digital technology to remain able to provide optimal educational services and not be reduced in terms of the quality of education (Attamimi and Wanma, 2022). Suantiani and Wiarta (2022) also emphasized that in education the quality of teachers and learning is one of the determinants of the quality of education. Teachers must change their teaching patterns, both in their cognitive, attitude and psychomotor way (Pulungan, 2021). The world of education has undergone many changes. This is felt by almost all teachers in Indonesia. In addition, it also makes information more open and widespread from and to all over the world across the boundaries of space and time (Jamun, 2018). The Covid-19 pandemic provides a lesson, a blessing in disguise. The Covid-19 pandemic has forced teachers to improve their ability to utilize information technology-based interactive learning media. Teaching materials contain material content, learning media, learning resources, or a set of information that can be absorbed by students through fun learning (Gultom et.al., 2019).

Even distance learning must be implemented so that the teaching and learning process continues to run well. This means that there has been a shift in the teaching system. Learning in synchronous mode or directly (live) requires teachers and students to be online at the same time in real time so as to allow direct learning to be centered on the teacher (Pakpahan & Fitriani, 2020). Teachers like it or not, like it or not, must be able to apply various learning models using various learning media. Online learning applications that can be used for real such as zoom, g-meet, webex, and others. New technologies, internet, video streaming, net-meeting, etc. are now making education more accessible and affordable for many students (Bianco & Carr-Chellman, 2002). This is in line with what was stated by Cooper et al. (1996:5), Reimers & Schleicher (2020) stated that there are several important things to respond to education to the Covid-19 pandemic, such as: (a) identification of ways to deliver education. If possible, it should include online learning, as it provides the best flexibility and interaction opportunities. If possible, it should include online learning, as it provides the best flexibility and interaction opportunities. If not all students have devices and connectivity, find ways to make them available to students. Explore partnerships with the private sector and communities in securing the resources these devices and connectivity provide; (b) clearly define teachers' roles and expectations to effectively direct and support students to learn in new situations, through direct instruction where possible or mentoring for independent study; (c) create a website to communicate with teachers, students and parents about curriculum objectives, suggested strategies and activities and additional resources. Many of the problems that arise in online learning regarding quality are often related to: (a) individual quality assurance requirements, (b), programs that have low (or non-existent) quality standards, and (c) no consensus on what quality means (Twigg, 2001).

As previously described, one good and effective way of teaching is to use video. This is in accordance with the statement of Iwantara, et.al., (2014), Batubara & Ariani (2016) found the positive impact of using video media in learning as an effective educational tool. The use of video in learning can increase students' concentration in learning (Hoxley & Rowsell, 2006). On the other hand, in practice, the making of learning videos is rarely done by teachers due to several obstacles (Fernando and Putri: 2021). Among the obstacles in making learning videos is the lack of mastery of technology such as operating computers/laptops (Johari et al., 2016; Putri & Citra (2019).

However, because online learning is almost never done, many teachers do not know and have not been able to use information technology-based learning media. Microsoft Power Point media is the only information technology-based media that they just know. One of the information technology-based learning media that can be used to overcome these problems is Open Broadcaster Software (OBS). OBS is an information technology-based audio-visual media that can be used to create interactive learning. By using OBS, students seem to be dealing with a teacher who is teaching. Thus, psychologically the students feel they are carrying out teaching learning process offline. OBS is open software so it costs nothing to buy it. Although OBS is open software, OBS has high capabilities so it is widely used by professionals to create professional interactive videos in broadcasting and training. Open Broadcaster Software (OBS) is software used to record video or live broadcasts which are then linked to a website (Kusuma, et al. 2018:15). OBS is a tool that is free and very accessible so that teachers can do their teaching as well as possible.

Based on observations and interviews conducted by the implementing team at schools, MIS Ar Rasyid on Jalan Besar Tadukan Raga, STM Hilir-Deli Serdang, it was found that the ability of teachers to use interactive learning media based on advanced

information technology is still very lacking. During online learning, the teachers only use the Whatsapp Group (WAG) and occasionally use video calls which can only be used with a limited number of participants. Teachers write instruction messages and share them in WAG with students. Every now and then the teachers send additional material files in the form of power points in the WAG. Meanwhile, increasing the ability of teachers to recognize and use advanced information technology-based learning media is a must at this time. The use of advanced information technology-based learning media has at least two goals. The first is to be one of the attractions for students in classroom interaction. The second is to be a catalyst for accelerating the introduction of the Industrial Revolution 4.0 for students. The very lacking ability of teachers in partner schools in developing interactive learning media based on advanced information technology can be an obstacle to achieving the two goals above.

II. Research Methods

Community partnership activities regarding Open Broadcaster Software (OBS) media training for Ibtidaiyah Ar Rasyid Madrasa teachers located on jalan Besar Tadukan Raga, STM Hilir-Deli Serdang were held from April 23 to June 17, 2022.

This community partnership activity is carried out through 3 stages, namely preparation, action and evaluation. There are 10 teachers involved in this activity. Preparation is carried out before community partnership activities are carried out. The team coordinates and collaborates with schools to achieve the goals and avoid various undesirable things. On the action stage, several methods are carried out, namely the lecture method, demonstration, discussion (question and answer), and workshop. Before being given a lecture, the team gave a pre-test to the teachers with the aim of knowing to what extent the teachers knew and implemented OBS media. Then, after the pre-test, the lecture method was carried out in explaining the basic introduction, important concepts and menus in making OBS-based learning media. The OBS manual is given to teachers to make it easier to understand all stages of OBS. In addition to the lecture method, demonstrations are also given for the practice of introducing OBS and the menus contained in it. Teachers install OBS and download it. During the demonstration stage, time is also given for discussion.

At the workshop stage, the team provided further assistance and training. The teachers make learning videos with OBS according to the field of study they are taught based on only one Basic Competence. The teachers did the video design independently and were accompanied by the implementation team. The teachers involved in this training consist of various fields of study, such as Mathematics, IT, Indonesian, English, Aqidah Akhlak, and Islamic Religious Education. Furthermore, at the evaluation stage, the implementing team reflected, revised and gave a post test. The reflection stage is given to review all video media that have been designed by the teachers based on the field of study. The last stage is giving a post test. This aims to see and find out to what extent the understanding and OBS products that have been produced by the teachers. The following is a figure of the stages of the OBS PKM implementation method.

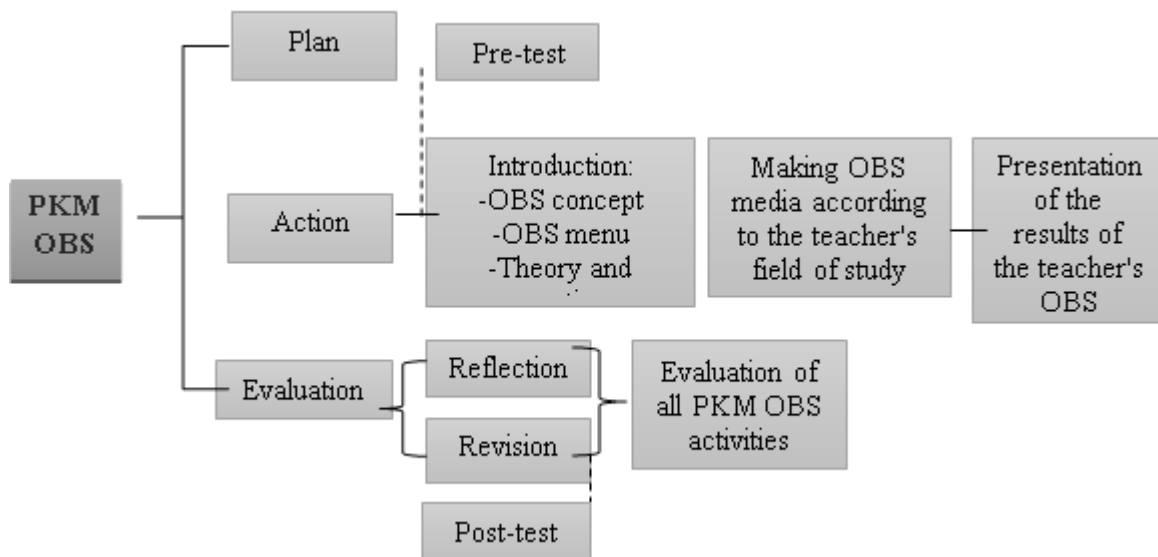


Figure 1. OBS PKM Implementation Method

III. Discussion

The Community Partnership Program (PKM) through the Open Broadcaster Software (OBS) media at Ar-Rasyid MIS partner school in Tadukan Raga Village, STM Hilir District, Deli Serdang Regency received a very positive response from all teachers in partner schools. This OBS media training was carried out to improve the quality of teachers in making OBS learning videos according to the field of study taught by the teachers. This activity involved 10 teachers from several fields of study, such as Mathematics, IT, Indonesian, English, Aqidah Akhlak, and Islamic Religious Education. Given to the teachers a google form link to respond to the pre-test given (Questions=Q) and the teachers responded (R). Based on the results of the pre-test given, the following data were obtained.

1) Q: As far as you know, what applications can be used to make learning videos?

RS: Kinemaster, Youtube

WR: Kinemaster, Google Meet

EBU: Kinemaster, Filmora.go

Based on the results of the pre-test, it is known that RS, WR and EBU already know several applications used in making learning videos such as Kinemaster, Youtube, Google Meet and Filmora.go. However, on the other hand, there are still teachers who do not know the application used to make learning videos.

2) Q: In your opinion, why does a teacher need to have the ability to make a learning video?

YH: The era of digitalization, so learning is more interesting

TRA: To facilitate Distance Learning (PJJ) and increase students' insight.

EL: It is necessary, because the longer the development of technology becomes more sophisticated, especially when faced with the current pandemic situation, when face-to-face learning is not allowed, students can get learning materials through learning videos.

Furthermore, when the teacher was asked about why a teacher needs to have the ability to make a learning video, YH responded with "the era of digitization, so learning is more interesting". TRA said that teachers need to have the ability to make videos to facilitate PJJ and increase children's insight. Meanwhile, EL stated that it was necessary for a teacher to have the ability to make learning videos.

- 3) Q: Have you heard/known about the Open Broadcaster software (OBS) studio application before? The responses of the teachers can be seen in the following chart.

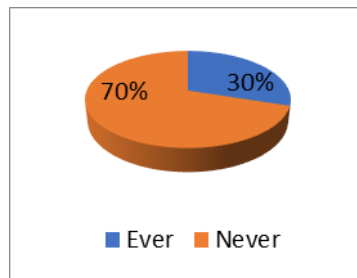


Figure 2. Teacher's Response to OBS

Based on the graph, it is known that about 30% of teachers have heard of or know about the OBS application, while 70% of teachers have never known the OBS application. This shows that in general the teachers have never known what the OBS application was like. The teachers only know about applications such as Kinemaster, Filmora, Youtube as they explained in the interview above. After the pre-test activity was given, the next activity was the delivery of material by resource persons to explain and share knowledge about the OBS application. After the download and installation proceed with the introduction of the menu or features contained in the OBS application as shown in the following image.

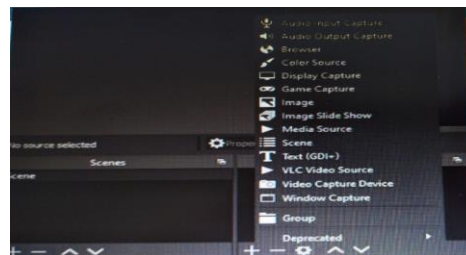


Figure 3. Menu or Features on OBS

It can be seen in the picture above that OBS features such as audio input capture which functions to record audio, display capture which is useful for recording things that will be displayed on the monitor screen, capture device functions to record faces during livestreaming or make content more interesting, media source to add media files in the form of video or music, and other features. After the introduction of the features, it was continued with the practical stage of making OBS learning videos that were guided directly by resource persons and assisted by the implementation team. Train teachers and provide motivation on the importance of increasing knowledge and skills in designing learning media based on OBS that is tailored to the subjects of each teacher. The teachers were given the opportunity to ask questions and discuss. In addition, demonstrations were also conducted on how to design OBS-based learning media and how to use these media in teaching and learning activities in the classroom.

The next stage, teachers are required to make OBS-based learning videos that are tailored to the field of study they are capable of. Teachers are given the freedom to make topics according to their subjects, and are only asked to make one basic competency which consists of one cognitive and one skill which of course refers to their syllabus and lesson plans. For this they are accompanied by an implementation team. The teachers were very enthusiastic and happy to participate in the whole series of this OBS workshop process.

This is reflected in the many comments and responses and questions from the teachers. The training and mentoring process can be seen in the following pictures.



Figure 4. *Implementing Team and Teachers Conduct OBS Workshop*

Furthermore, the post-test was given at the end of the activity. The teachers were given a google form link to respond to the post test given and also their feedback on this OBS activity. What are the messages and impressions of the teachers regarding the OBS training and mentoring process, what about the implementation team, resource persons, and training facilities. Learning video products from the field of study that are taught by teachers will also be designed based on OBS. Here are some post test data for teachers.

1. Questions (Q).

Q: According to you, what are the advantages of the OBS application that is offered.

YM: The advantage is that we can use applications with not so much ram, the menu is also easy to set up. Using the app is also easy.

AR: More able to explore learning methods, for example making learning videos, can add power points. Besides that, you can also make the background with animations, for example videos like in a studio room, therefore it is more interesting to use this OBS application.

RS: Can include images, audio, video, camera, windows while recording and easy to stream etc.

Based on the results of the post test given to the teachers, it is known that the teachers really like this OBS. This is reinforced by YM's statement that OBS has not so much ram, the menu is also easy to set. Using the app is also easy. AR also gave a similar opinion, "With OBS, you can explore learning methods, for example, making learning videos, you can add power points, create backgrounds with animations, such as videos like in a studio room, therefore it is more interesting to use this OBS". RS also confirms that OBS can include images, audio, video, camera, window while recording and easy to stream etc. OBS has many benefits compared to other applications.

2. Q: Has there been an improvement in teaching quality after receiving OBS training?

EBU: Improved especially quality in the field of media.

AD: Can greatly improve the quality of teaching.

DMM: Yes, because you can use this application for teaching, so teaching, so teaching is not monotonous.

When the teachers were asked the question whether after receiving OBS training there was an increase in the quality of teaching? EBU stated that there was an improvement especially in the quality of media. AD also agrees with EBU, which can greatly improve the quality of teaching. DMM added the same thing, OBS can improve the quality of teaching because it makes the teaching process not monotonous. And of course, this is very interesting for the students, making them not sleepy and bored.

3. Did you get additional knowledge/insight about OBS in this training?

YM: Yes, of course

EL: Of course, you get a once and so easy to understand OBS explanation in this training.

EBU: Thank God

YM: Yes, getting additional knowledge, previously not familiar with OBS, now even know how to use it.

Furthermore, the teachers were asked the question, did the teachers get additional knowledge/insight about OBS in this training? And their response was the same as saying that they got additional knowledge, as EL emphasized, of course they got a very easy to understand explanation of OBS in this training. YM also agrees with EL by saying that with OBS getting additional knowledge, previously did not know OBS, now even know how to use it.

Moreover, the following are the results of the learning videos for each field of study that have been made by the teachers. Bahasa Arab

1. The results of the video teaching practice using OBS made by RS in Arabic language studies with the topic 'School Equipment', are very interesting. The sound in the video is strong and clear. Eye catching and colorful video design. RS is able to input text into the video. Through videos that have been made by the hospital, the material can be played back by students to better understand it and further study it wherever students are.



Figure 5. Screen Shoot of OBS Video in Arabic

2. Mathematics

In Mathematics, 2 representative videos were shown, namely from DM and AR. DM determines the topic in his OBS video is Understanding 'Understanding Angles and Types of Angles'. DM designed the video well. Only the sound (sounds) is a bit weak, you should increase the volume again. The form of the power point displayed is attractive, the lighting on the video is also bright. Students can learn about 'angles and types of angles' well wherever they want. They can repeat the teacher's explanation until they understand it. The same thing was done by AR in his OBS video in Mathematics studies with the topic 'Circle'. OBS AR videos are very eye catching. The sound displayed is also clear. The explanation of the material is delivered in simple language so that students can easily understand it. Students can study the topic 'Circle' in this video at any time.



Figure 6. Screen Shoot Video OBS Mathematics

3. Islamic Education

The video of the results of learning practices in the field of Islamic Religious Education made by AD has the topic of 'Thaharah'. AD designed the OBS video very well, starting from the introduction, clear video sound and good volume. The OBS video is also bright and looks good. AD has also been able to include text in the video. The explanation contained in the video is also clear. This Thaharah video can be repeated by the students at home or anywhere.

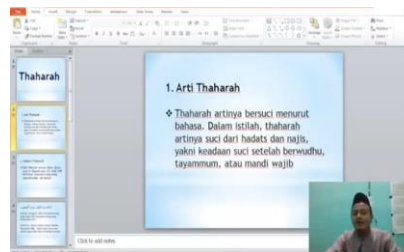


Figure 7. Screen Shoot Video OBS Islamic Education

Information Technology (IT)/Information Communication Technology (ICT)

Furthermore, TRA made an OBS learning video in IT/ICT studies with the learning topic 'Understanding Monitor, Mouse and CPU'. Because TRA is an IT teacher, it is not difficult for him to make OBS videos. The menus on OBS are familiar to him. TRA makes his teaching videos well. The video background is designed with a variety of images. The sound (sound) is clear and clear, the video image is also bright. Text input is also good. This video can also be studied again by students anywhere.



Figure 8. Screen Shoot Video OBS IT/ICT

4. Akidah Akhlak

In the the subject of Akidah Akhlak, WR made a learning video with the topic 'Learning the Akidah Akhlak Heaven and Hell'. WR has been able to make background videos very well. The background of the video is displayed with interesting, colorful background variations and this is certainly very interesting for students to repeat this video. The sound is clear and crisp, the pictures are bright too. The appearance of the OBS WR video is very interesting. Students can revisit

this heaven and hell learning video whenever they want. WR has been able to create video material well.



Figure 9. Screen Shoot Video OBS Moral Theology

At the evaluation stage, the implementing team evaluate the learning video products that have been designed by teachers at partner madrasas. The team provides evaluation results and suggestions for the good of the products that have been made. Meanwhile, reflection is carried out in reviewing the continuity of the activities of the teachers in making and creating this OBS media in their learning videos. At the end of the activity, a response questionnaire link was given to the teachers to see how the teachers thought about the OBS media training and assistance. The following table shows the results of the teachers' responses to OBS training and mentoring.

Table 1. Results of Teachers' Responses to OBS Training and Mentoring

No.	Statement	Percentages (%)		
		Strongly agree	Agree	Disagree
1	The training objectives were well achieved	88.9	11.1	0
2	The material is delivered systematically	77.8	22.2	0
3	The contents of the teaching materials in the form of OBS power points are easy to understand	77.8	22.2	0
4	The content of teaching materials in the form of tutorials provided is easy to understand	77.8	22.2	0
5	I feel this training is very useful for the development of my pedagogic competence.	88.9	11.1	0
6	I feel motivated to make a good OBS learning video for the smooth learning process	88.9	11.1	0
7	The instructor is able to master the material well	88.9	11.1	0
8	I feel that this OBS application is a practical application	88.9	11.1	0

Based on the responses given by the teachers, it can be concluded that this OBS training and mentoring community service is very interesting for teachers. This OBS community service can improve the knowledge and skills of the teachers at MIS Ar

Rasyid. In general, it can be seen that the results of the teacher's response who said they strongly agreed with the percentage of 88.9% for this OBS. In addition to the response regarding motivation, the teacher's response to the material presented was also very good, by saying that he strongly agreed with the material delivered systematically, as well as the content of teaching materials in the form of OBS power points that were given easy to understand with a percentage of 77.8%. The teacher's response to the resource persons and the implementation team was also very good with 88.9%.

IV. Conclusion

The team of OBS has successfully carried out a community partnership program. The teachers have been able to present their teaching and learning process in an interesting and interactive way and present it also through live streaming YouTube. They were very enthusiastic in participating in the entire series of activities that had been given by the implementing team. They are very happy and motivated to continue making other learning videos according to their respective fields of study. The knowledge and motivation of teachers are increasing. The teachers also said that they would be very happy and excited if this training was continued in the future.

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