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The development of teacher creativity in making creative learning materials at experimental state elementary school 2 Sleman

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ABSTRACT

In the era of the Covid-19, distance learning with interesting learning materials is needed to avoid boredom and burnout. Online distance learning requires the use of the internet and the readiness of teachers to process learning materials. In reality, internet use is limited to teachers and students in urban areas that have better information and technology. Therefore, the development of teacher creativity in making creative learning materials, especially in making creative media, needs to be used as a follow-up to overcome Online learning problems. Internet information technology, which was previously used as a source of information, must now be used as a media aid in Online learning, especially at the level of basic education. After a 42-hour workshop with discussions: (1) Creative and interesting learning with a literary approach; (2) Making interesting and creative learning media, and; (3) Learning technology and its handling. The teachers of Experimental State Elementary School 2 have obtained recipes for making creative learning media that are able to attract stronger attention to children when participating in online learning. Teachers have also been able to prepare PowerPoint for interesting and not boring subjects.

KEYWORDS
Distance learning
Teacher creativity
Creative learning
Elementary School

1. Introduction

Currently, the world is hit by the Covid-19 pandemic, which has a significant impact on all countries, including Indonesia. One of the major impacts in the field of education is the termination of the face-to-face teaching and learning process (KBM) in all schools and replaced with an online learning system. The use of online learning is said to be one of the right steps to prevent the transmission of COVID-19. The online learning carried out by these educators uses various platforms, such as WhatsApp groups, Google Classroom, Google Meetings, Zoom, and other online media. Although online learning is not something new, because previously used to do conventional face-to-face learning, online learning that is carried out by all public becomes something new. Before the Covid-19 pandemic, teachers and students were used to conventional face-to-face learning at school. Generally, the experience of using the internet is only limited to a small number of teachers and students. It is also generally limited to urban areas that have better technology and information infrastructure and is carried out at the higher education level. Generally, the experience of using internet information technology is more widely used as a source of information, not as a media to help organize meetings between teachers and students in the form of online learning. Therefore, online learning in the era of the Covid-19 pandemic is a big challenge for the world of education, especially at the basic education level. Considering online learning as something new and understanding internet technology, the following challenges in online learning in elementary schools are related to teacher understanding in making creative learning media. In online learning, teacher creativity is becoming increasingly important in order to be able to create interesting material because interesting material will be an entry point for understanding student knowledge [1].

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In online learning, teachers and students are in separate places and are only connected by an internet signal. Children follow the learning process from anywhere, including at home. In fact, the home situation has many more attractive factors to students, for example, the presence of game items. It is well known; children are a period where they are still in the world of play. Therefore, teachers must be able to create more interesting subject matter so that students remain focused on the learning material and do not turn away from other stimuli at home. Creative learning media are learning media that are able to attract stronger attention than the stimuli that may appear around children when participating in online learning [2]. Interesting material will make students more interested so that explanations of learning materials can be delivered properly [3]. Many researchers conclude that teacher creativity positively impacts student learning outcomes [4]–[9]. However, there is little information about how teachers understand learning technology for making creative learning media. Teacher creativity was still not good among these few studies. In fact, some researchers conclude that teachers' perceptions of creativity are not clear [10]. As in the study, the conclusion also happened to teachers at Experimental State Elementary School 2 Sleman. In this favourite school, the understanding among teachers about the use of information technology for making learning presentation materials is still weak. Based on the need assessment of community service on improving the competence of making interesting teaching materials in the era of the covid-19 pandemic, data was obtained that, in fact, the majority of teachers have good teaching abilities, but they still rely on patterns of making learning materials where students and teachers meet in a room and class physically. Minimal technological aspects are used for the manufacture of learning materials. In this regard, training related to the creation of creative learning materials among the teachers of Experimental State Elementary School 2 was finally decided to be held. With the application of knowledge and technology, the training succeeded in obtaining encouraging results. This article discusses the process and results of the community service activities that have been carried out.

2. Method

All community service activities are carried out online. The material was delivered using a combined technique of lectures, practical application of theory, public assistance, and mini-competitions with prizes. The lecture technique is used because this method is most likely to be done in online learning. Lectures are a popular technique for conveying messages because they are efficient and can be adapted to a wide range of objects; everyone can learn well; teachers can easily convey material to students [11], [12]. Lectures carried out in service are carried out by applying a sequential lecture model, where the delivery of problems is followed by solutions and conclusions [13]. The practice of applying theory is used to demonstrate the practical application of the theory in real terms. Public assistance is used to provide guidance to service participants on how they solve the problems they face. Meanwhile, mini competition is used to foster the spirit of achievement [14], [15]. To further increase the spirit of achievement, mini rewards are accompanied by prizes for participants with the best work because rewards have been proven to have a positive impact on increasing one's motivation and performance [16], [17]. The participants of the activity included all the teachers of the Experimental State Elementary School 2 Sleman, which consisted of 3 male teachers and 18 female teachers. The school principal was involved from the beginning to the end of the activity. To measure the absorption of the material, before and after the activity, evaluative tests were given in the form of pre-test and post-test using the help of google form. The pre-test is done before giving the activity material, and the post-test is done after the activity is finished. The questions of the two tests are the same, namely about making interesting learning materials, but in the post-test, the serial number of the questions is randomized so that the order of the questions is different from the order of the questions during the pre-test. The results of the two tests were compared with statistical tests in the form of normality tests and paired tests. To evaluate the implementation of the activity, participants were also asked to fill out a questionnaire via a google form.

The training materials are divided into two main sessions, namely the making of materials that have an attractive presentation effect on students and the technique of making interesting learning materials using PowerPoint. Each session is given at the same time, which is 90 minutes, which is divided into sessions giving material and question and answer. At the time of giving the material, examples of

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interesting forms of material were shown. To improve optimal understanding, participants are given the freedom to ask questions. After the training was completed, the activity was followed by public assistance for six working days. During the public assistance period, mini-competition activities were held to make interesting learning materials in the form of short PPT. All teachers and school principals send their work to be assessed. During the public assistance period, participants were also given the opportunity to discuss and consult more deeply regarding the problems and difficulties they faced in making interesting learning materials. Public assistance ended with a request to participants to fill out the post-test. The post-test was intended to determine the participants' absorption of the material. The pre-test and post-test data were processed using statistical tests with the help of SPSS software to find out more precisely whether training and public assistance had a significant effect on increasing knowledge and creative skills in making interesting learning materials or not.

3. Results and Discussion

3.1. Profile of Experimental State Elementary School 2 Depok Sleman

Experimental State Elementary School 2 Depok, located on Jalan Caturtunggal Sekip, Depok District, Sleman Regency, Yogyakarta Special Region (Figure 1).

Fig. 1. The Location Map of Experimental State Elementary School 2, Depok Sleman

The physical building of the Experimental State Elementary School 2, Depok, Sleman, meets the standards of a good and healthy school (Figure 2) with relatively complete facilities.

Fig. 2. The Building of Experimental State Elementary School 2, Depok Sleman

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Historically, this school was a pilot school for lecturers at Gadjah Mada University (UGM) and the Institute of Teacher Training and Education (IKIP, currently changed to UNY) to provide a school for the sons and daughters of a large family of lecturers and employees, considering the existing elementary school, which is very limited. With the approval of the Rector of UGM, on October 10, 1963, Experimental State Elementary School 2 was finally established. The Experimental State Elementary School 2 uses the 2013 curriculum and has A-accredited status. The students of Experimental State Elementary School 2 were 192 boys 177 girls, where the number of students joined in 12 study groups. Each class level consists of 2 parallel classes. Every day, the implementation of the teaching and learning process takes in the morning. During the Covid-19 pandemic, the implementation of learning uses an online system. Experimental State Elementary School 2 has 12 classes, where at each grade level, there are two parallel study groups. Overall, Experimental State Elementary School 2 has 28 teachers, two staff led by one principal. The ratio of study group students at Experimental State Elementary School 2 is 30.75, while the ratio of students to teachers is 17.57. The profiles of teachers and staff at Experimental State Elementary School 2 can be seen in Table 1.

Table 1. SDM of Experimental State Elementary School 2 Depok, Sleman

	SDM Category	Teachers		Staffs	
		Male	*Female*	*Male*	*Female*
A	Education				
	1.SMA	0	0	2	0
	2.Sarjana	5	15	0	2
	3.Master	1	3	0	0
B.	Qualification	2	9	2	2
C.	Certification	4	9	0	0
D	Employment status				
	1. PNS/Government Employees	4	11	1	0
	2.Honorer/Honorary Employees	2	7	2	2

3.2. Workshop Participants

The implementation of the activity was attended by 21 teachers of Experimental State Elementary School 2, consisting of 3 men and 18 women (Table 2). A total of 7 teachers were unable to attend the training because they were participating in evaluation activities at the Sleman Education Office. The principal followed the full activity time from the beginning to the end of the activity; even the principal also participated in a mini-competition. The presence of the principal in the activity is interpreted as separate support and motivator among the participants. This is in line with the conclusion of the study, which states that providing leadership motivation will provide a spirit of achievement among subordinates [18]. The presence of the principal is proven to encourage teachers to participate in all service activities with full-time discipline.

Table 2. The Profil of Workshop Participants

Participants	Education	Total
Male Teacher	Bachelor	2
	Master	1
Female Teacher	Bachelor	16
	Master	2
Total		21

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3.3. Implementation of the Service

The community service program was preceded by preparation and socialization of activities among the teachers of Experimental State Elementary School 2 Sleman. The socialization was conveyed about the rules for implementing activities, participation rewards for training participants, mini-competition, judging system, competition prizes, participation certificates, and championship certificates. All service activities are carried out through Google Meet, in line with the government's appeal not to create physical crowds in order to avoid the potential for the spread of COVID-19, which is still high during the pandemic. To facilitate coordination and communication, the Team formed a WAG (WhatsApp group) on April 8, 2021, consisting of all teachers and community service teams. Through WAG, the Team provides all information related to activities and the distribution of questionnaires in the form of Google registration forms, pre-test and post-test, as well as questionnaires to evaluate the implementation of activities. The duration of the service activity itself lasts for eight days consisting of 1 day of testing (29 June 2021), one training day (30 June 2021 ending with a post-test), and six days of conducting public assistance (1 July to 6 July 2021), or for 42 hours of work. All activities are carried out online using google meet. Figure 3.

Fig. 3. Screenshots of Community Service Training Activities

In general, the implementation of the training went smoothly. Workshop participants enthusiastically participated in the activities. This can be seen from the seriousness of the participants, the questions asked in the question-and-answer session, and the works submitted in the mini-competition. All registered participants attended all activities in each session of material giving. The first material contains creativity using a literary approach. This is done in making interesting learning materials because literature influences creativity, according to some research results [19], [20]. For participants, this topic is new material. Generally, participants do not know that literature has an influence on creativity. Therefore, the provision of this material was sufficient to get many responses from the participants. The second material is technical in nature, namely how to make interesting subject matter using the PowerPoint (PPT) application. Although PPT is widely known, it turns out that there are not many detailed features related to PPT among the participants. In addition, in general, participants do not understand how to develop a communicative PPT to generate interest from students. In this material, the basic principles of communication science are given. In making PPT, participants generally do it based on their habits and subjective intuition. Understanding of student characteristics and the characteristics of subjects is less attention. This material presentation session presented details on how the PPT was prepared. After public assistance, the Team sent a pre-test to be filled out by participants via a google form. First, the team

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measured the normality of the data using Shapiro Wilk. After statistical testing, the data obtained that the significance of the pre-test is 0.157 and the post-test is 0.547, which means the data is normally distributed. Furthermore, the data was tested using a paired sample t-test using SPSS software. The results of statistical tests produce a significance value of 0.00, which is smaller than 0.05. Thus, the training organized by the service team has a significant influence on increasing the knowledge and skills of participants to create interesting and creative learning materials. In addition to training and public assistance, the team held a mini-competition. The team provided cash prizes for the best 1, 2 and 3 participants. Figure 4 shows the work of the competition winner who came in first place.

Fig. 4. PPT of the First Winner by Halifah, SE

This mini-competition is intended to raise the spirit of producing the best work. The competition in question is to make a short PPT that is creative and interesting. Generally, participants make PPT based on the subjects taught. In Figure 5, it is the winner of the competition who gets second place. The name of the second winner is Novi Andriyani, S.Pd. The PowerPoint material is entitled "Welcome to Class 3 Interactive Learning."

Fig. 5. PPT of the Second Winner by Novi Andriyani, S.Pd

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Eti Daniastuti, S.Pd, took third place, and her work is depicted in Figure 6. The mini-competition was attended by all training participants as a form of practising the information and theory obtained during the training. In general, all PPT is quite interesting. This fact proves that the knowledge and skills of teachers in making interesting subject matter that is relatively suitable for online learning have improved relatively well. PPT material is very varied, according to the subjects taught by the teachers. PPT assessment was carried out by the service team. Based on the assessment, it was obtained that the best PPT 1, 2 and 3 were respectively achieved by (1) Halifah, SE.; (3) Eti Daniastuti, S.Pd., M.Pd. Winners get a reward in the form of cash which is transferred directly to the winners. Mini competition is the end of a series of community service activities.

Fig. 6. PPT of the Third Winner by Eti Daniastuti, S.Pd., M.Pd

The closing of the activity will be held on July 6, 2021, via online using the Google meet the application. Regarding the evaluation of activities, based on a mini-survey using google-form, data was obtained that in general, the participants assessed that the training provided many benefits and new knowledge and skills that were relevant to the creation of interesting learning materials to support the performance of teachers at Experimental State Elementary School 2 Depok Sleman. In general, no serious obstacles were found in the implementation of the training except those related to synchronizing the teacher's activities. However, this problem can be solved well. The use of the online system was relatively smooth, although the participation of the participants was carried out from their respective homes. However, communication between members and the community service team can run well. The small obstacle encountered was related to the internet network connection for some of the training participants, considering that the internet signal in some areas where the participants lived was very varied. There were training participants who had lost their connection but managed to reconnect in the activity

4. Conclusion

In general, the training went smoothly. Participants felt that the training materials provided new knowledge and skills that were useful for improving the tasks and performance of the teachers at Experimental State Elementary School 2 Depok Sleman. The ability of the teachers at Experimental State Elementary School 2 was relatively improved, which was proven by the participants being able to make

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PPT more interesting. Thus, this community service activity succeeded in providing benefits as planned at the beginning of the activity. In relation to the method of service implementation, it was concluded that the training accompanied by practice and giving examples, followed by the public assistance method and equipped with mini-competition activities, proved to have a significant effect on increasing the knowledge and skills of participants in making interesting and creative learning materials suitable for use in a pandemic situation. Statistical tests on pre-test and post-test provide strong evidence for this conclusion. Thus, other service actors can duplicate all training methods used in community service to be used for training on similar topics in different places with different participants.

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