Developing Teacher Professionalism in Online Learning Through Assistance of Web-Based Digital Teaching Materials

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Abstract

This community service aims to develop teacher professionalism in online learning through assistance in preparing digital teaching materials. The methods used in the service activities are interactive lectures, discussions, practices, and assignments. The participants involved were 11 elementary school teachers. Community service activities are carried out through making guidelines, implementing assistance, monitoring, and assigning tasks. The service results show that the mentoring activities have succeeded in developing the abilities and professionalism of teachers in the use of technology in learning. Participants have compiled digital teaching materials independently and have implemented them for students in their online learning. Meanwhile, 81.82% of participants stated that service activities provided new insights, and 63.64% were satisfied with the activities carried out.

Kata Kunci: Bahan Ajar Digital; Berbasis Web; Pembelajaran Daring
Introduction

The existence of the Covid-19 pandemic which, requires the implementation of physical distancing and social distancing, implements learning in educational institutions no longer held face-to-face but must be carried out online. That situation requires teachers to adapt to new habits in teaching, namely the mastery and use of technology in learning. Teachers are required to always be in tune with progress to encourage various change efforts. The use of technology in online learning is necessary and expected to support the learning process to run optimally, like face-to-face learning in class.

The principle of online learning is that it is easy for students to access learning materials and resources without time and place restrictions. Therefore, online learning requires teachers to digitally prepare activity designs, learning tools, and learning content or teaching materials. Making tools and teaching materials is an obligation for teachers because it is one of the elements of pedagogic competence that teachers must design and implement learning. The competence is as regulated in the Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers Article 10, which emphasizes that teachers must have pedagogical, personal, social, and professional competencies. Teachers need to design interesting teaching materials to quickly understand students and stay motivated and enthusiastic in learning so that learning objectives can be achieved even though learning is carried out online. Zulkifli (Zulkifli and Royes 2017) states that one of the competencies that teachers must possess is the ability of teachers to master teaching materials and develop them because teaching materials are essential components in learning which are also a necessary part of determining the success of students.

The success of teachers in conducting online learning in this Covid-19 pandemic situation is the ability of teachers to innovate in designing and concocting materials, learning methods, and
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applications that follow the materials and techniques. Creativity is the key to a teacher’s success to motivate students to remain enthusiastic in learning online and not be a psychological burden (Harnani 2020).

Teachers must provide meaningful learning to students and be supported by adequate teaching materials and learning media to achieve learning objectives (Hartati and Kusdianto 2019). However, many teachers are still not used to developing teaching materials, especially digital teaching materials, because of the difficulty of entering technology in classrooms for learning due to teachers' low competence in Information and Communication Technology (ICT). Fathurrohman explained from the Ministry of Education and Culture's Data and Information Technology Center that the ICT competence of the number of teachers familiar with technology is less than 50 percent of the total existing teachers (Fathurrohman 2020). The minimum ICT competence of teaching teachers should be at level 2, namely, preparing learning systems, teaching materials, syllabus, and learning methods with digital or online patterns (Satariyah 2020).

Teachers still experience many limitations in compiling, designing, or making teaching materials to implement online learning. Most teachers only rely on giving assignments in teaching. There are very few teachers who have created or composed interesting digital teaching materials in learning. The advantage of digital teaching materials is that they are easy to edit, produce, and deliver via the internet or online media. Teaching materials designed to be interactive, engaging, and varied can help students understand the subject matter more effectively and increase student participation and activity more in learning.

The same thing happened to elementary school teachers in Balaraja District. Based on observations and interviews that have been carried out, there are still few teachers who can carry out learning interestingly with the help of web-based digital teaching materials. The thing that underlies the lack of interesting learning is
the lack of use of technology in learning. Teachers are not so familiar with the use of technology in learning that can simplify and streamline learning. In online learning, due to the Covid-19 pandemic, the implementation of learning is carried out through the WhatsApp application only, with assignments to students being the most dominant activity in learning. Submission of material to students has not been maximized, especially interesting material or teaching materials. The teaching materials used only revolve around the assignment of reading textbooks and limited PowerPoint media. This activity will likely make students feel bored because the teaching materials are not interactive and interesting, so learning tends to be ineffective.

Making interesting teaching materials will motivate and make students even more enthusiastic in learning (Sadjati 2012). The use of technology in learning is no longer a strange thing, but teachers must get used to teaching by using technology. Thus, the need to prepare web-based teaching materials based on practical-theoretical considerations such as efficiency and effectiveness of learning.

The web is one of the services owned by a global computer network or the internet. The utilization of the web can support optimal learning (Husain 2014). Suppose web-based learning is designed properly and appropriately. In that case, it can make learning fun, have a high element of interactivity, make students remember more teaching materials, and reduce operational costs that students usually incur to learn.

The development of web-based digital teaching materials in education is expected to increase the effectiveness and attractiveness of online learning. The main characteristics that are the great potential of web-based teaching materials are presenting multimedia, processing, and presenting the information. In web-based online learning, digital teaching materials can be in the form of text, graphics, images, sound, video, or multimedia (Direktorat Ketenagaan Dirjen Dikti 2010). The design of such teaching materials requires
great effort and will from the teacher. Therefore, teachers need to understand the importance of preparing interesting teaching materials, have the will and ability to make them.

This assistance activity for the preparation of web-based digital teaching materials is one of the efforts to improve the competence of elementary school teachers in maximizing their role in the classroom. This activity can reflect and encourage the emergence of creativity, innovation, and the quality of skills and experiences of teachers in carrying out the learning process (Effendi et al. 2021). By increasing these competencies, it is hoped that teachers can implement the online learning process by using teaching materials that are interesting and fun for students so that online learning remains quality and successful.

**Research Methodology**

This assistance activity for the preparation of web-based teaching materials is one of the thoughts of the community service team to improve the quality of elementary school teachers in online learning. The activity was carried out offline at SDN Balaraja I. The activity participants were limited to only 11, considering the government's policy regarding the Enforcement of Restrictions on Community Activities (PPKM). The realization of problem-solving is as follows:

1. **Socialization Stage**

   The service team conducted socialization with the Principal of SDN Balaraja I regarding the plan for mentoring activities. The socialization activity welcomed with a positive response, this is because assistance in the preparation of web-based digital teaching materials is considered important in helping to improve the ability of teachers related to mastery of technology in online learning. For competency development, teachers need to be encouraged to continue to be active in developing their quality by participating in
various activities, including training, seminars, workshops, and KKG or MGMP (Nurpratiwi and Amaliyah 2020).

2. Data Collection Stage for Training Participants

After the socialization process is complete, data collection is carried out for teachers who will participate in mentoring activities; because of the PPKM, participants are limited. Not all teachers at SDN Balaraja I participate in community service activities.

3. Stage of Preparation of Activity Implementation Schedule

The team prepares a schedule to implement mentoring activities at this stage, starting with preparation, implementation, and evaluation.

Community service activities are carried out using interactive lecture methods, discussions, practices, and assignments. The material presented is about the use of the web in the manufacture of digital teaching materials. After explaining the material, the team asked participants to simulate and practice compiling web-based digital teaching materials using Canva, Google Drive, and Seesaw Class.

After the mentoring activities are carried out, there will be a satisfaction survey and the provision of input and suggestions from participants as part of the evaluation so that the mentoring program can be further improved in quality. There are several indicators were used to determine the achievement of the program, namely:

1. Participants participated in all mentoring sessions enthusiastically
2. Participants can absorb the material presented by the instructor quickly
3. Participants can produce web-based digital teaching materials that can be used in online learning.

Result and Discussion

Community service activities are carried out through several stages of the process as follows:
1. Guide Creation

The purpose of making a training guide is to make it easier for participants to learn the use of the web, which will be explained in an interactive lecture session. This guide explains creating digital resources on Canva, creating and sharing Google Drive links, and Seesaw Classes. The steps for using it are described in detail in the guide in easy-to-understand language accompanied by pictures.

2. Mentoring

Assistance in the preparation of web-based digital teaching materials for the professional development of elementary school teachers in online learning is carried out offline. In general, community service activities went well and smoothly. The implementation begins with the delivery of an explanation regarding the preparation of web-based digital teaching materials. The presenter introduced and explained the digital platform that the participants would study and distributed the guidelines that had been made to all participants to make it easier for participants to understand the material.

One of the websites that participants can use to create engaging digital teaching materials for students is Canva. Canva is a tool for graphic design that bridges users to easily design various types of creative designs online (CloudHost 2019). Participants can create engaging teaching materials on Canva, edit and download them easily.

Apart from Canva, another material presented was creating a google drive storage link and online classes on the Seesaw Class platform. Participants can compose digital teaching materials with creative designs using the Canva app, upload the results to Google Drive, and share them with students via the Seesaw Class platform.

3. Monitoring and Assignment

The team carries out monitoring activities during mentoring (phase I monitoring) and after mentoring activities (phase II monitoring). Phase I monitoring activities were carried out by the team to participants during mentoring, observing participants'
enthusiasm and motivation in participating in mentoring activities. During preparing digital teaching materials, the team paid attention to participants and facilitated if participants found difficulties in their preparation practice. A positive response was shown by the participants who took part in the mentoring activity to prepare this digital teaching material. Participants were enthusiastic and wanted to know every step of the preparation. Many of the participants asked questions about the steps that needed to be done, while others immediately put them into practice.

The unfinished work is used as homework, and this must then be submitted to the team within one week after the activity is completed.

Phase II monitoring is carried out for one week from the implementation of mentoring activities. Assignments are given to participants to see the success of the mentoring that has been carried out. Participants are assigned to create digital teaching materials, links, and use the Seesaw Class application in one week. Assignments that have been made are then sent to the presenters. Assignments that have been completed and submitted can be used as a benchmark for participants' success after mentoring.

All participants submit completed assignments. Based on the submitted assignments, it shows that participants have been able to compile digital teaching materials well, can create google drive links and share them, and have been able to create classes on the Seesaw Class application.

The following are the results of a survey of participant satisfaction with community service activities that have been carried out:
Table 1. Diagram of Participant Satisfaction Survey Results (%)

In general, the survey results show that participants are satisfied with the service activities that have been carried out. The highest score of 90.91% of participants thought that during the activity, any complaints or problems faced by participants when compiling digital teaching materials could be followed up properly by the team, meaning that participants were satisfied with the services provided by the service team.

Based on an interview with one of the activity participants, after the service activity was completed, the participants had started compiling and providing digital teaching materials using Canva in their online learning and asking students to submit assignments on the shared Google Drive link. This shows that the mentoring activities have succeeded in developing the teachers' ability and professionalism in using technology in learning.

The participants' responses to community service activities are as follows:

Table 2. Responses of Participants in Community Service

| No | Participants | Response                                      |
|----|--------------|-----------------------------------------------|
| 1  | A1           | Very useful and get new knowledge             |
| 2  | A2           | Increase knowledge about learning with the electronic web |
| 3  | A3           | Very useful and can be applied in current     |
| No | Code | Conditions                                                                 |
|----|------|-----------------------------------------------------------------------------|
| 4  | A4   | Become more knowledgeable about digital media                               |
| 5  | A5   | Adding insight to online teaching                                          |
| 6  | A6   | Easy and applicable to students                                            |
| 7  | A7   | Provide knowledge and experience according to needs                        |
| 8  | A8   | It's okay                                                                   |
| 9  | A9   | Very suitable to be applied in online learning                             |
| 10 | A10  | Very useful for teacher progress regarding technology                       |
| 11 | A11  | Attractive and easy to apply to students                                    |

All participants gave a positive response that service activities provide insight into new knowledge related to mastery of technology in learning and are easy to apply to their students. Participants' suggestions are activities that can be carried out on an ongoing basis to improve their competence in teaching and always be updated about the latest learning technology.

**Conclusion and Suggestion**

Based on the results of community service activities at SDN Balaraja I, it can be concluded as follows:

1. The participating teachers were enthusiastic in participating in this mentoring activity, with positive responses given by the teachers.
2. The mentoring activity is considered successful if the objectives of this activity have been achieved. There was an increase in participants' ability to use the web to compile digital teaching materials as a form of teacher professional development. Furthermore, the teacher participating in the activity has been able to implement it to students in online learning.
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