

Training and Mentoring in Creating Website-Based Student Learning Spaces Using Google Sites

Moch. Fauzi¹, Gati Ayu Likasari², Triwilujeng Ayuningtyas³, Fahmi Abdul Halim⁴

^{1,2,3,4} Mathematics Education, STKIP PGRI Lumajang, East Java, Indonesia

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 Corresponding Author:

Name author: Moch. Fauzi

E-mail: moch.fauzi@stkipgrilumajang.ac.id

Abstract

The majority of elementary school, MI, MTs, MA teachers in Bago Village, Pasirian District, Lumajang Regency still provide material traditionally, namely using textbooks as learning resources. In fact, we have now entered the modern era, namely the era of technology. The use of technology such as digital applications makes the appearance of teaching materials better, more real, and more attractive. Activities are urgently needed to improve teachers' soft skills in mastering website-based learning space creation applications using Google Site so that the skills of integrating technology into learning materials also increase. The implementation of this community service uses training and mentoring methods for community service partners, namely elementary school, MI, MTs, MA teachers in Bago Village, Pasirian District, Lumajang Regency in the odd semester of 2024/2025. The training was carried out face-to-face (offline) and mentoring was carried out directly at SD Negeri Bago 3 to practice using the website-based Google Site. The results of the community service showed an increase in the mastery of the concept of "Creating a website-based student learning space" by 90%, an increase in the mastery of the concept of "Google site as a learning support application by 85%, and an increase in teacher professionalism in creating digital learning media by 87%. The high increase in skills and knowledge needs to be balanced with the availability of facilities and infrastructure owned by the school, especially teachers, who in this case act as makers or distributors of digital mathematics learning media. In addition, teachers also expect further training on digital-based assessments in learning at the elementary, MI, MTs, MA levels.

Keywords: *Google Site, Student Learning Spaces, Training and mentoring, Website*

1. Introduction

In this era of globalization and information, the development of online student learning spaces is also increasingly advanced. Seeing this, the use of information technology in education, especially in learning activities, is a demand for teachers to be able to design more interesting learning activities. Learning activities in the classroom are a world of communication between teachers and students who can exchange thoughts, ideas, and concepts. The urgency of online student learning spaces for teachers in community service proposals is to create more effective and interesting learning activities and minimize errors in communication in learning activities. To overcome this, it is very important to include online student learning spaces in learning activities. In addition, the proposer wants to optimize the learning media that has been carried out in previous research. In previous research (Fauzi and Shodiq, 2022), researchers developed Microsoft PowerPoint learning media based on Visual Basic for Application (VBA) for junior high school students. The results of the development of this learning media have been published in the AIP Conference Proceeding indexed by Scopus.



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The purpose of this community service is (1) to provide an alternative online student learning space for teachers and students using a website-based learning space using the Google site. (2) Creating an online student learning space based on a website using a Google site that is expected to make students happy in mathematics learning activities. Seeing the purpose of community service, of course there must be real efforts to improve the quality of learning. The researcher made this effort by conducting training and mentoring in creating an online student learning space based on a website using a Google site. This effort was made as an initial step for researchers to achieve the goal. So far, teachers have used Module teaching materials available on the market. In fact, not all Modules on the market are in accordance with student characteristics (Dewi et al., 2017; Sulistyorini & Harmanto, 2018). A good module is a Module made by the teacher himself that is interesting (Hasibuan, 2015), more fun because the composition of colors and text can be made as attractive as possible (Rahmatillah et al., 2017). The existence of a Module will increase student learning outcomes and increase learning motivation (Adawiyah et al., 2021; Cahyono et al., 2015). The reality is that teachers do not prepare their own Modules for learning, so from this service they will be trained on how to create a Module that is presented in the student's online learning space based on a website. In addition, teachers and students can also interact freely by utilizing the learning space. Based on the analysis of the learning situation in SD, MI, MTs and MA in Bagu Village, Pasirian District, Lumajang Regency, it is known that the problems faced are 1) The difficulty of students in understanding the subjects, 2) the absence of teacher skills in the field of technology, and 3) the lack of human resources who understand technology. Due to these problems, our Partner Empowerment Improvement Program Team through the online Student Learning Space Training and mentoring program for teachers and students using a website-based learning space. This program will later help teachers in providing alternative online student learning spaces.

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The reality is that teachers do not prepare their own Modules for learning, so from this service they will be trained on how to create a Module that is presented in the student's online learning space based on a website. In addition, teachers and students can also interact freely by utilizing the learning space. The problem in mathematics learning activities in SD, MI, MTs and MA in Bagu Village, Pasirian District, Lumajang Regency is the lack of teacher understanding of Information and Communication Technology in compiling online mathematics learning spaces for students. So that learning activities in the classroom are still monotonous which results in students not understanding the material explained by the teacher. The ability to understand helps students develop ways of thinking and making decisions (Yanti et al., 2019). The opinion of (NCTM, 2000) also explains that mathematical understanding is one of the most important aspects in the principles of mathematics learning.

According to Firmansyah et al. (2020) one of the main aspects that supports the learning process is the selection of the right media according to the learning material presented. Based on this opinion, it is clear that a teacher needs to compile learning activities using tools in the form of Information and Communication Technology. The tools referred to in this service are online student learning spaces based on websites using Google sites. The objectives of this community service activity are 1) to produce a website-based online student learning space that is suitable for use, 2) to be an alternative for teachers in choosing a technology-based online student learning space, 3) to create professional teachers in accordance with statutory provisions. In addition to these objectives, this community service is carried out so that the role of STKIP PGRI Lumajang lecturers is not only to teach on campus but also to teach outside the campus through SD, MI, MTs and MA partners in Bagu Village, Pasirian District, Lumajang Regency. Based on the description of the problems above, the focus of the Community Service in this activity is training and mentoring in creating a website-based online student learning space for class teachers in SD, MI, MTs and MA in Bagu Village, Pasirian District, Lumajang Regency. With the hope of creating quality learning and producing professional teachers according to their fields.



2. Hypotheses Development

The Effect of Training on the Ability to Create Website-Based Learning Spaces

Training is designed to provide participants with technical and practical knowledge regarding the use of Google Sites as a platform for website-based learning. Based on constructivist learning theory, effective training improves participants' ability to apply technology in educational contexts.

The Effect of Mentoring on Readiness to Implement Website-Based Learning Spaces

Mentoring offers more intensive individual support, helping participants overcome technical and conceptual barriers. The mentoring process facilitates effective knowledge transfer, thereby enhancing participants' readiness to implement the training outcomes.

The Interaction of Training and Mentoring on Learning Outcomes

The combination of training and mentoring is expected to produce a synergistic effect, where training provides a technical foundation, while mentoring reinforces practical application. This interaction aligns with the blended learning approach, combining formal and informal learning for optimal outcomes.

The Effect of Google Sites Utilization on Student Learning Effectiveness

Google Sites, as a website-based learning platform, provides features that support interactivity and accessibility. This can improve the effectiveness of student learning by integrating technology into the teaching-learning process.

3. Method, Data, and Analysis

The implementation method used is the Training and Mentoring for Creating Website-Based Student Learning Spaces Using Google Sites in order to be implemented properly, is carried out with the following stages of preparation, implementation and evaluation: A. Preparation Stage In the preparation stage, the community service team conducted a survey and observation to partners, namely SD, MI, MTs and MA in Bago Village, Pasirian District, Lumajang Regency and held discussions regarding the community service implementation schedule. In addition, it also provided an explanation to the Principal of SD Negeri Bago 03 (as the host/location of the activity) from the beginning to the end of the implementation of the training B. Implementation Stage 1) Socialization and training for creating online student learning spaces The target participants are class teachers and subject teachers at SD, MI, MTs and MA in Bago Village, Pasirian District, Lumajang Regency. Participants will be given socialization and training on creating online student learning spaces based on websites using Google Sites. This activity aims to improve teacher professionalism in learning activities. Elementary school, MI, MTs and MA teachers in Bago Village, Pasirian District, Lumajang Regency play a role in actively participating in socialization and training activities for creating online student learning spaces. 2) Training and mentoring skills to create online student learning spaces The participants are class and subject teachers at SD, MI, MTs and MA in Bago Village, Pasirian District, Lumajang Regency. Participants will be given socialization and training on skills to create online student learning spaces. The skills in question are procedures for using technology according to the characteristics of SD, MI, MTs, and MA students as well as the use of website-based Google sites. Not only conducting training, the Community Service Team also provides mentoring to participants in order to provide maximum service and work results. C. Evaluation Stage The evaluation stage is carried out periodically starting from the activeness of participants, the process and results of creating online student learning spaces. In addition, the results of the evaluation stage will be discussed again with the training participants in order to provide corrections to the results of the participants' work. So that with the evaluation, participants can maximize the project or online student learning space that has been worked on.

Data

In this training and mentoring activity there were 57 participants, consisting of 8 (eight) schools including SD Negeri Bago 1, SD Negeri Bago 2, SD Negeri Bago 3, SD Negeri Bago 4, MI Miftahul Ulum, MTs Miftahul Ulum, MA Mambaul Ulum and SD Negeri Condro 02. The presence of participants can be seen in figure 1 below.



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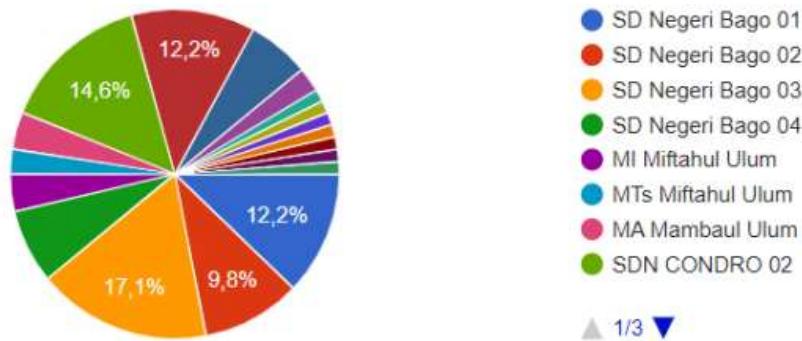


Figure 1. The presence of participants

Analysis

After carrying out the training and mentoring, participants were asked to fill out an online questionnaire (Google Form) consisting of 9 questions with Likert scale answers and 2 questions with descriptive answers. Filling out the questionnaire also includes submission of project assignments in the form of a website using Google Site. The contents of the questionnaire can be seen in Figure 2 below.

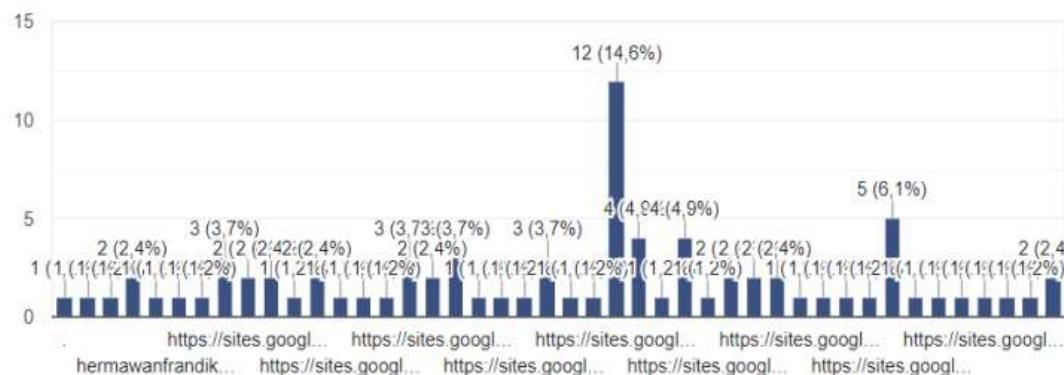


Figure 2. Response to filling out the questionnaire

4. Results and Discussion

The activity "Training and Mentoring for Creating Website-Based Student Learning Spaces Using Google Site at SD Negeri Bago 03, Pasirian, Lumajang" was held on September 22-23, 2024. This PKM activity is to provide socialization, training, and mentoring to teachers at SD, MI, MTs and MA in Bago Village, Pasirian District, Lumajang Regency regarding the creation of online student learning spaces based on websites, as well as improving teacher professionalism and learning activities so that school partners are able to manage classes well and are able to become professional educators according to their duties and functions. This community service activity is in accordance with the MBKM and Main Performance Indicators (IKU) of STKIP PGRI Lumajang Higher Education, the MBKM and IKU are that Lecturers carry out activities outside the campus. Including the Partner Empowerment Improvement Program which is one of the project activities for this school, it is hoped that it can provide opportunities for lecturers to develop themselves, especially in the field of education.



Training Stage

The focus of the community service is to provide socialization, training, and mentoring to class teachers at SD, MI, MTs and MA in Bago and Condro Villages, Pasirian District, Lumajang Regency in creating online student learning spaces based on technology. This activity was carried out at SD Negeri Bago 3 for 2 days on Sunday-Monday, September 22-23, 2024. On the first day, training activities were carried out and mentoring activities were carried out on the second day. However, considering the enthusiasm of the participants in participating in the PKM activities, the activities on the second day were carried out on the first day after the mentoring activities ended. This activity was attended by various schools in Bago Village and Condro Village, Pasirian District, Lumajang Regency. The number of participants who took part in this PKM activity was 57 people. The majority of teachers were very enthusiastic about asking questions about how to write or create a programming language that can be used directly for the Powerpoint application, and asking what the solution is if there is a programming language that experiences an error or does not work. A snippet of the enthusiasm of the participants while actively participating in the training activities can be seen in Figure 3.



Figure 3. Implementation of Training and Mentoring

Mentoring Stage

In this mentoring stage, the speaker selects 2 selected model teachers who are given mentoring by lecturers and students in designing and creating learning media that utilize the website-based Google Site application. The mentoring process is carried out through the analysis stage of the learning devices to be developed, the design process, the practical process of compiling learning media using the Google Site application. The follow-up to this mentoring program is planned to continue to the implementation and evaluation stages which will be the target of collaboration between teachers, students, and lecturers. Follow-up activities are planned in the form of collaborative research.

Program Evaluation Stage

The last stage is the program evaluation stage. This stage is carried out by distributing questionnaires via Google Form which are given to training and mentoring participants. The results of this survey are open (do not affect individual assessments) with the hope that training and mentoring participants can answer each question/statement in this questionnaire objectively. The content of the form consists of participant identity for the purpose of providing certificates, a list of questions with Likert scale answers 0-10, and descriptive questions. The list of questions is as in table 1 below.

Table 1. Program Evaluation Instruments



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Question	Score
<ol style="list-style-type: none"> What is the value of the quality of the implementation of this training? What is the value of the quality of the training presenters? What is the value of the quality of the usefulness of the material in this training? What is the value of the mastery of the concept of "creating a website-based learning space" that you obtained through this training? What is the value of the mastery of the concept of "creating a website-based learning space" as an interactive mathematics learning medium" that you obtained through this training? After participating in this training, what is the value of the possibility that you will combine learning strategies and Google Site application technology according to the material in mathematics learning practices? After participating in this training, what is the value of the possibility that you will utilize website-based Google Site application technology to realize effective mathematics learning? After participating in this training, what is the value of the possibility that you will apply learning strategies using various technologies in mathematics learning practices? After participating in this training, what is the value of "Increased Knowledge and Skills in Utilizing Technology in Digital Mathematics Learning" that you feel? 	Likert scale 0 - 10
<ol style="list-style-type: none"> What obstacles/difficulties do you feel in implementing learning using information technology? Please write down the theme of the next training needed, as well as your impressions and messages from this Workshop (if any)! 	Description

Source : research data processed in 2025

The responses of 57 training and mentoring participants were analyzed by converting the improvement scale to a maximum of 100% and then finding the average of the percentage of improvement with the average formula. The recapitulation results of the participant responses are summarized in table 2.

Table 2. Improving Mastery of Concepts and Skills Related to Creating Website-Based Student Learning Spaces Using Google Sites

Types of Soft Skills	Percentage Increase	Participants	Rate
Website	50%	0	90%
	60%	2	
	70%	15	
	80%	10	
	90%	10	
	100%	20	
Google Site	50%	0	85%
	60%	5	
	70%	10	
	80%	12	
	90%	15	
	100%	15	
Skills	50%	0	87%
	60%	0	
	70%	10	
	80%	15	



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90%	17
100%	15

Source : research data processed in 2025

In general, the conceptual knowledge of participants increased above 80% which can be categorized as very good. The high increase in skills needs to be balanced with the improvement of facilities and infrastructure in schools. Based on the response to the question of obstacles/difficulties in implementing technology in learning, the majority of teachers responded that the facilities and infrastructure in schools were still inadequate. The results of the evaluation on the last question about the further training needed, the majority of teachers responded that they needed more intensive training on this digital-based learning media, so that when it will be applied in learning it can be maximized.

5. Conclusion, Limitations, and Suggestions

Conclusion

This training and mentoring activity is able to improve teacher professionalism in creating innovations in learning activities through digital-based websites, this is proven by the percentage of mastery of the concept of "Creating student learning spaces based on websites" by 90%, an increase in mastery of the concept of "Google site as a learning support application by 85%, and an increase in teacher professionalism in creating digital learning media by 87%. The high increase in skills and knowledge needs to be balanced with the availability of facilities and infrastructure owned by schools, especially teachers, who in this case act as makers or distributors of digital mathematics learning media. This finding shows that the majority of elementary school, MI, MTs and MA teachers in Bago Village, Pasirian District, Lumajang Regency already have good digital literacy, but what is noted is that this has not been balanced with adequate facilities and infrastructure in schools.

Limitation and suggestions

The limitations of this study include its focus on a specific group of participants, limiting the generalizability of findings, and the short duration of training and mentoring, which may hinder participants from fully mastering the skills. Additionally, varying levels of digital literacy among participants and the exclusive use of Google Sites may have influenced the outcomes. Future research should include a more diverse participant pool, extend the duration of training and mentoring, and explore the long-term impacts of the program. It is also recommended to compare multiple platforms for creating learning spaces and evaluate their impact on student outcomes to gain a more comprehensive understanding.

6. Acknowledgment

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