Training on the Use of Learning Management Systems as an Effort to Develop Learning Media

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ABSTRACT

The purpose of this community service is to develop teachers' understanding in using Learning Management System (LMS). The technique or method of approach used is to provide training on the use of LMS for teachers as an auxiliary medium for the teaching and learning process. It is hoped that this community service will be able to improve the ability and understanding of teachers in using LMS used in schools. So that the teachers become capable and proficient in using every feature in the LMS. From the results of the service program, 80% of respondents already understand the use of the LMS program for learning media.

Keywords: *Learning, LMS, Media, Training*

1. INTRODUCTION

Improving performance in the field of future education requires the use of information systems (IS), as IS is not only useful as support, but as a weapon to support success in the field of education **(Kemdikbud, 2015; Erwinsyah, 2018)**. Moreover, the ability to utilize Information and Communication Technology (ICT) is one of the mandatory needs in the 21st century **(Nuryani & Handayani, 2020; Zulkifli, 2020)**. According to Batubara **(2017)**, Indonesian teachers have already possessed the ability to use ICT to support their teaching and learning process but they still need adequate guidance and deeper practice. Therefore, an attempt to improve teachers' competence related to IS as well as ICT is essential to support them achieve goals of the teaching and learning process.

The coronavirus outbreak that has hit over the past two years has forced everyone to adapt to the use of technology. Education is one of the fields that had to quickly adapt to the use of technology during the pandemic, regarding both human resources and the equipment used. One of the fields of education that had to adapt to the use of technology was the teaching and learning process. The teaching and learning process during the pandemic was carried out using various platforms such as *Google Classroom*, *Google Drive*, social media and instant messaging media such as *Whatsapp* and *Telegram*. These platforms could be helpful but could not be used optimally for conducting teaching and learning process.

The use of a Learning Management System (LMS) can be one of the alternatives as it has the convenience of providing a more complete experience for both teachers and students in conducting teaching and learning. LMS can be used independently for online learning **(Dini, 2022)**. The use of LMS is easy and beneficial for students and teachers **(Listiyono, 2022;Fakhruddin, 2022)**. LMS can be used to deliver materials used in learning **(Bakhrun & Awaludin, 2022).**

SMAN 1 Citeureup had already had an LMS application for learning but it had not been put into the maximum use yet because the teachers' knowledge and skills to use the application was still need improvement. Thus, the purpose of this community service was to provide training to teachers so that they could use the school's LMS as interactive learning medium.

2. DESIGN METHOD

The method used in community service was a descriptive approach conducting in stages, which are listed in Figure 1.
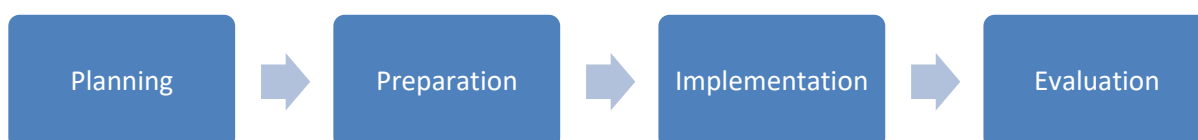

Figure 1. Stages of Community Service

As it can be seen in Figure 1, the community service was carried out in four stages, namely:
- Planning as the initial stage of the community service, in which a team was formed and a proposal was prepared.
- Preparation stage, which included the activities such as determining partners and places of service, drawing up schedule and preparing training materials.
- Implementation stage, in which the community service was carried out to implement the training on the use of Learning Management System (LMS).
- Evaluation, as the final stage of this community service referring to the activity of analyzing the results obtained from the implementation of this service.

3. RESULTS AND ANALYSIS

The community service was conducted for four months from May to August 2022 at SMA Negeri 1 Citeureup Bogor. As mentioned above, the community service activity was conducted in four stages and this report describing how the activity was carried out.
To support this service activity. We do planning by contacting schools that will be used as service partners. Then, conduct discussions and interviews related to the problems being faced and the relevance of the need to support problem solving through service activities.
The next stage is the process to map the results of discussions and interviews with partners. From the mapping of needs, it is mapped into material needs and a schedule of activities that will be carried out during service activities. This is so that the material presented becomes very useful and relevant to the needs of partners.

The implementation of this LMS training was opened by the Principal of SMA Negeri 1 Citeureup, Mr. R Sopian Nirwan, S.Pd., M.M (Figure 2). This activity was carried out online through the zoom application every Saturday for four months.
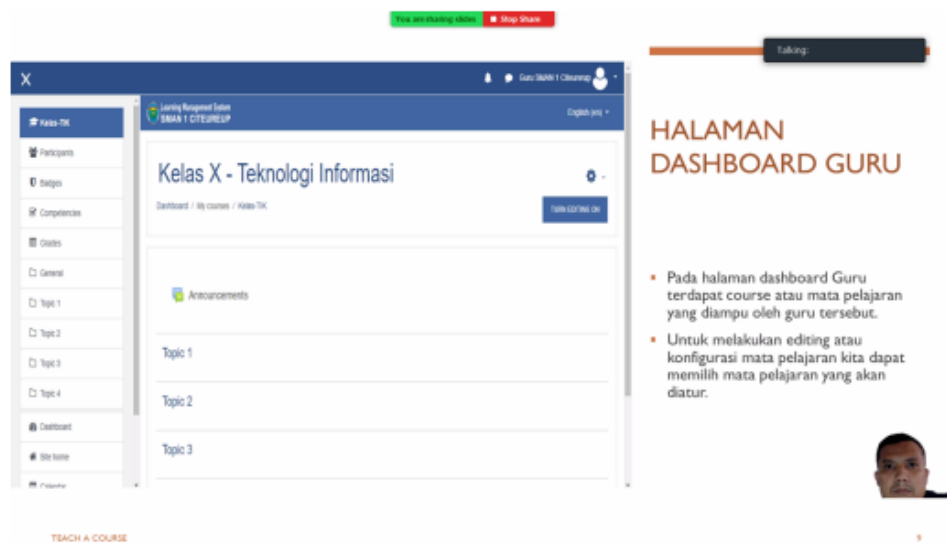

Figure 2. Principals' Welcoming Speech

After the remarks and presentations from the principal, the initial presentation of training on the use of LMS was proceeded as seen in Figure 3, 4 and 5. Figure 3 shows the opening of the training.

Figure 3. Opening of Training

Figures 4 and 5 show dashboard page and edit subject explanation consecutively.
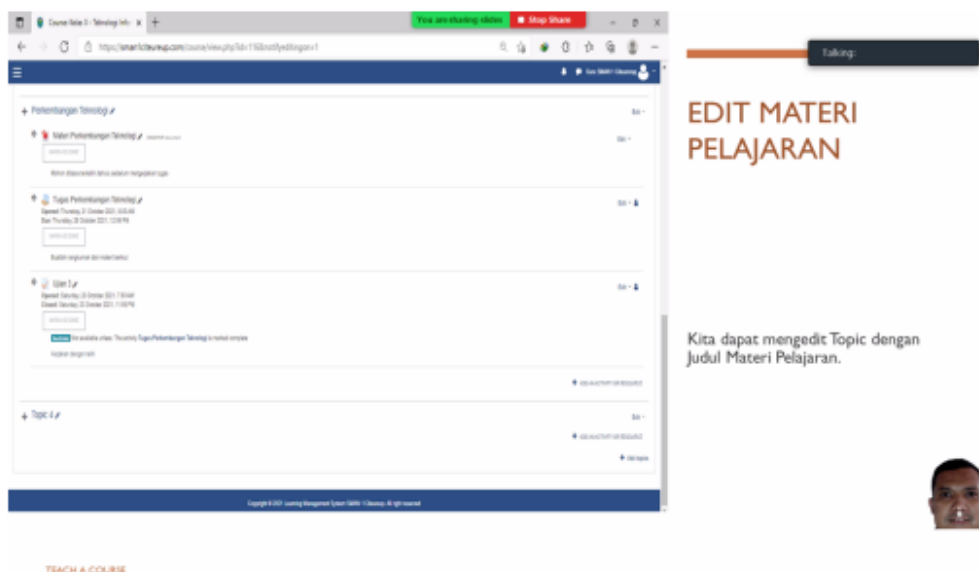
Figure 4. Explanation of teacher's dashboard page

On the teacher's page, teachers can carry out the process of adding learning materials of the subject they teach every week to make it easier for them to deliver learning materials.

Figure 5. Explanation of subject edit page

On the subject edit page, teachers can add categories of material, and arrange assignments, quizzes, as well as exams. All these activities can be done online, thus facilitating the learning process.

Figure 6 is a documentation of the activities of the participants who took part in the training
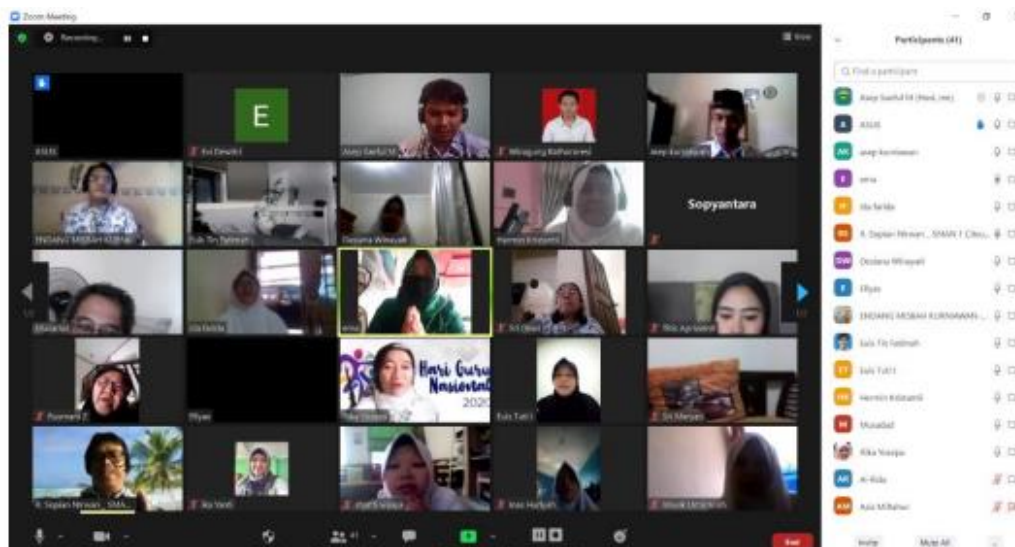
Figure 6. Participant Documentation

In this activity, the material presented includes the initial stages of using the LMS application. The LMS application used is an application designed and created by the school as an effort to make accommodations to the needs of students and teachers. The combined use of LMS helps teachers and students in the learning process. Teachers in planning learning, while students can increase interest in learning, especially during a pandemic **(Wiragunawan, 2022)**.

The presentation was carried out from how to operate the LMS, create classes, include students, and others. So it is hoped that the use of LMS will be a solution in the learning process in schools.

In addition to providing materials presented online, surveys using questionnaire were carried out before and after the training activities. The initial questionnaire was distributed to the participants to gain understanding of their initial knowledge and abilities related to the use of LMS. Meanwhile, the final questionnaire was used to measure the results of the participants' activities after the implementation of training on the use of LMS.

For the initial questionnaire, five questions were asked to the participants as seen in table 1 to find out the initial understanding of each trainee so that it could be compared to the results of the final questionnaire which would be distributed after the participants attending training sessions.

Table 1. Initial questionnaire

No	Question
1.	Have participants previously used the LMS platform?
2.	Have participants ever created learning media with computers?
3.	Have participants ever used learning media other than LMS for the teaching and learning process?
4.	Are the media other than LMS difficult to use in delivering the materials?
5.	Have participants previously attended LMS training?

Of the five questions asked in the initial questionnaire for the participants, the response results were obtained as shown in Table 2.

Table 2. Initial questionnaire results

Question	Respondents	Percentage
1	33	32.73
2	33	81.21
3	33	70.30
4	33	90.30
5	33	21.81
Average		59.27

From the results in Table 2, it shows that at the average participants was familiar with LMS but had not fully used LMS in their teaching and learning process. The last question shows that the majority of the participants had never attended training related to LMS. From the results of the initial understanding related to the use of LMS in the participants' place, it can be seen that the percentage of the participants who understand how to use LMS is below 80%. Furthermore, it was found out that the main difficulty of the participants was that they had not previously gotten complete training on use of LMS. As the conclusion from the initial questionnaire, training on the use of LMS was seriously needed and thus this became an opportunity to implement the planned LMS training.

To find out the increase in understanding and ability of the participants in using the LMS, a final survey was conducted employing questionnaire asking questions as seen in Table 3. There were ten questions asked to find out the increase of the trainees' understanding related to the use of LMS after they attended the training. These questions include understanding using an LMS, understanding existing features, and comparing using an LMS with other platforms to use as a learning medium.

Table 3 Final questionnaire

No	Question
1	Can participants take part in the training properly?
2	Do participants think using LMS is easy to use?
3	Can participants use the LMS for learning media?
4	Can LMS help participants in the learning process?
5	Are the features on the LMS easy to understand?
6	Can LMS be used as a media for learning?
7	Can LMS be used even if learning is offline?
8	Can LMS facilitate the teaching and learning process?
9	Is LMS easy compared to other platforms?
10	Is the material easier to deliver using an LMS?

The result of the questions asked for the final questionnaire is seen in Table 4, which is a table of measurement results for the given questions. From the 10 questions given, it shows that in almost every aspect there are changes in participants' understanding on the use of LMS. Further, the result from question 2 shows that the use of LMS compared to other platforms makes learning easier, but this shows that broadly speaking the use of LMS can be easier to understand after attending training.

Table 4. Final questionnaire results

Question	Respondents	Percentage
1	33	98.18
2	33	93.33
3	33	98.18
4	33	100
5	33	90.30
6	33	95.15
7	33	96.96
8	33	87.27
9	33	60
10	33	79.39
Average		89.87

The results in Table 4 show that the average percentage increases to 89.87. It is clear that there is an increase in understanding between before and after the training on the use of LMS as teaching and learning media. With an average of more than 80%, it shows that LMS training for these teachers can provide convenience in operating it. So, it is hoped that this will be a motivation for the training participants to transmit this understanding to the students in using LMS as an alternative to the current learning media.

4. CONCLUSIONS

Based on the results of the service stage carried out and the results of the questionnaire given, there was an increase in participants' understanding to use the LMS which reached more than 80%. In addition, the use of LMS can be used not only during online learning but can be used offline. For further service, it can be developed with training on the use of LMS to maximize its use because of the many features on the LMS that can be utilized. After each teacher understands the use of LMS and is familiar with the use of LMS, it can be continued into the program to develop learning media and media for exams in supporting the learning process in the next training program.

ACKNOWLEDGEMENT

LIST OF REFERENCES

Bakhrun, A., & Awaludin, I. (2022). Pengembangan Sistem Kaderisasi Daring Menggunakan Learning Management System Moodle. *INTECOMS: Journal of Information Technology and Computer Science*, *5*(1), 41-48.

Batubara DS. 2017. Kompetensi Teknologi Informasi dan Komunikasi Guru SD/MI (Potret, Faktor-faktor, dan Upaya Meningkatkannya). *Muallimuna J Madrasah Ibtidaiyah*. 3(1):48–65.

Dini, J. P. A. U. 2022. Pengembangan Learning Management System (LMS) di Era Pandemi Covid-19 pada Pendidikan Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *6*(1), 107-118.

Erwinsyah A. 2018. Penerapan Pembelajaran Berbasis Teknologi Informasi Dalam Menunjang Kinerja Guru. *Pros Semin Nas Adm Pendidik |& Manaj Pendidik*., siap terbit.

Fakhruddin, A. M., Putri, L. O., Sudirman, P. R. A. T., Annisa, R. N., & As, R. K. B. (2022). Efektivitas LMS (Learning Management System) untuk Mengelola Pembelajaran Jarak Jauh pada Satuan Pendidikan. *Jurnal Pendidikan Tambusai*, *6*(2), 10026-10033.

Kemdikbud. 2015. Tingkatkan Mutu Pendidikan Melalui Peningkatan Pelatihan Guru. [diakses 2022 Sep 8]. https://www.old.kamadeva.com/index-menu-news-newsid-mendikbud-tingkatkanmutu-pendidikan-melalui-peningkatan-pelatihan-guru.htm.

Listiyono, H., Sunardi, S., Utomo, A. P., & Mariana, N. (2022). Pengaruh Kemudahan Penggunaan dan Kemanfaatan Learning Management System (LMS) Terhadap Niat Penggunaan E-Learning. *Jurnal Sisfokom (Sistem Informasi dan Komputer)*, *11*(2), 208-213.

Nuryani D, Handayani I. 2020. Kompetensi Guru Di Era 4.0 Dalam Meningkatkan Mutu Pendidikan. *Pros Semin Nas Pendidik Progr Pascasarj Univ pgri palembang 10 januari 2020*., siap terbit.

WIRAGUNAWAN, I. G. N. (2022). Pemanfaatan learning management system (LMS) dalam pengelolaan pembelajaran daring pada satuan pendidikan. *EDUTECH: Jurnal Inovasi Pendidikan Berbantuan Teknologi*, *2*(1), 82-89.

Zulkifli Z. 2020. Analisis Kompetensi Guru Menghadapi Era Revolusi Industri 4.0. *JISIP (Jurnal Ilmu Sos dan Pendidikan)*. 4(3). doi:10.36312/jisip.v4i3.1286.