Utilizing Wordwall in Teaching Literacy and Numeracy at SDN 105290 Desa Kolam, Kec. Percut Sei Tuan, Kab. Deli Serdang

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Abstract. The implementation of training on the use of Wordwall application as a means of developing interactive learning media is part of community service activities initiated by a team from the English Education Study Program, Faculty of Language and Arts, State University of Medan. This activity was held at the partner school, SDN 105290, Desa Kolam, Kecamatan Percut Sei Tuan. The purpose of this training is to provide understanding and skills on the use of Wordwall in designing interactive learning media, so that it can be a solution in creating a more dynamic learning atmosphere. This training adopted the lecture and hands-on method. Theoretical material about Wordwall application was presented by the speaker through a slide presentation, then participants were given the opportunity to practice directly by following the technical steps of using Wordwall in detail. Wordwall, as an educational application, is expected to increase students' interest in the learning process. Numeracy literacy is a very important skill in the modern era, considering that almost all aspects of life require this ability. Students who master literacy and numeracy have an advantage in understanding lessons and solving problems. Therefore, these two basic skills are a top priority that must be mastered, especially by school-age children. This situation requires teachers to have competence in developing numeracy literacy-based teaching materials. The expected outcome of this activity is that teachers can understand the latest innovations in the use of interactive learning media and are able to apply Wordwall to design teaching media that suits the needs of the class. The anticipated positive impact is the establishment of close collaboration between the service team and teachers at SDN 105290, in order to improve the quality of education in Desa Kolam. In addition, this training is expected to encourage teachers to become more competent, creative and innovative in teaching.

Keywords: *Wordwall*, teaching media, interactive learning

1 Introduction

The rapid development of digital technology forces educators to adapt to the changes that occur. Especially in utilizing and optimizing digital platforms as a tool to enrich knowledge and develop learning media that suits student needs. Currently, the process of designing learning media can be done more simply and efficiently through the use of digital applications [1].

The use of digital technology as a learning tool is a strategy to create a more dynamic and interactive learning experience. Digital applications have become a familiar part for students, as most of them are used to using and applying them in their daily lives. However, to prevent

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students from using these apps without a clear purpose, it is important to introduce them to apps that function as educational media [2]. By doing so, students will be more motivated to engage in the learning process, which will ultimately increase interactivity in learning activities.

Nowadays, there are various digital application-based learning media that can be utilized in an interactive learning process. One form of interactive digital learning media is Wordwall application. Wordwall is an educational game platform that can be utilized in the learning process to convey subject matter through audio-visual combinations that can attract students' attention and increase their learning motivation[3]. This is in line with Maghfiroh's (2018) opinion, which states that Wordwall media can strengthen student interaction in learning activities [4]. Wordwall is also known as a digital application that can function as a learning media as well as an evaluation tool [5]. This application has many advantages, one of which is free access that only requires registration via an email address, and allows users to choose from a variety of available templates.

The mastery of numeracy literacy, which includes knowledge and skills related to the understanding of numbers, symbols, and interpretation of quantitative information such as graphs, tables and diagrams, is a crucial competency for today's generation. With proficient numeracy literacy, students can efficiently apply their mathematical knowledge in the context of everyday life. Strengthening numeracy literacy at the primary school level can be done gradually and continuously, starting from the local government level, educational institutions, to the classroom. This numeracy literacy can be enriched through habits integrated in the learning process as well as development in extracurricular activities. The scope of numeracy literacy is not limited to mathematics subjects, but also has a close relationship with other literacies, such as cultural or civic literacy.

The implementation of numeracy literacy-based learning is very important to improve students' ability in numeracy literacy so that they can think logically [6]. Literacy includes language expertise involving listening, speaking, reading and writing skills, as well as critical thinking and problem-solving skills needed in everyday life. Meanwhile, numeracy is the skill to apply number concepts and counting operations in real-life contexts and understand quantitative information around us. This skill is reflected in comfort in using numbers and the ability to apply math concepts intelligently. However, there are still misconceptions in numeracy literacy learning in schools that are still focused on Indonesian Language and Mathematics subjects. This needs to be corrected, because basically numeracy literacy skills are not limited to these two subjects, but include all subjects studied. These skills are comprehensive and must be linked to students' daily lives in the learning process.

State Elementary School (SDN) 105290 is located in Desa Kolam, Kecamatan Percut Sei Tuan, Kabupaten Deli Serdang. The operation of this school is under the management of the Ministry of Education and Culture, led by the Principal Mrs. Syamsiah, S.Pd. In this institution, there are 15 teaching staff, consisting of 10 civil servant teachers and 5 honorary teachers, as well as one education staff as a school operator. SDN 105290 has a total of 144 students spread across six classes. The literacy and numeracy program is implemented in grade 3 with 23 students and grade 4 with 28 students.

This PKM program plans to carry out community service activities in the form of numeracy literacy-based Wordwall interactive media training for teachers at SDN 105290 so as to increase teacher knowledge and skills in developing digital teaching media. The results of this training are expected to be a solution for teachers in implementing numeracy literacy learning, especially in creating interactive teaching media. Moreover, the benefits obtained by teachers in participating in this training activity are increased teacher competence in integrating technology during the learning process in the classroom. The learning that teachers do is more creative and

innovative in accordance with the learning needs of students who are more interested in technology.

At SDN 105290 in Desa Kolam, four main issues faced by teachers were identified. The core of these problems is rooted in their limitations in utilizing interactive learning media based on numeracy literacy. To overcome these challenges, the solution offered through this PKM program is to provide training to teachers to be able to use Wordwall interactive teaching media based on numeracy literacy. Wordwall itself is an educational game application designed to facilitate learning, where the subject matter is presented with an audio-visual combination that can attract students' attention and increase their learning motivation [3]. This is in line with the findings of Maghfiroh (2018), who stated that the use of Wordwall media can strengthen student interaction in the learning process. In addition, Wordwall is also considered a flexible digital platform, which can be used as both a learning and evaluation tool [5]. Numeracy literacy, which includes knowledge and skills in understanding numbers, symbols and analyzing quantitative information such as graphs, tables and diagrams, is a crucial competency for today's generation. With strong numeracy literacy, students are able to apply mathematical concepts in real-life situations.

In detail, teachers recognized and could create Wordwall interactive media based on numeracy literacy, shared the media on social platforms, formed teacher discussion groups around media skills, and improved teacher competence in technology use in the learning process [7]. After the implementation of this PKM program, the following objectives can be achieved. These objectives are,

a. Teachers in partner schools recognize Wordwall interactive learning media as tools that can be used in the learning process,
b. Teachers in partner schools can create Wordwall interactive teaching media based on numeracy literacy according to the teaching material presented,
c. Teachers in partner schools can create Wordwall interactive learning media based on numeracy literacy that is shared on social media,
d. The formation of a discussion group of teachers at SDN 105290 has the skills to make interactive teaching media Wordwall based on numeracy literacy,
e. The competence of teachers at SDN 105290 Kolam Village in using technology has increased.

2 Implementation Methods

2.1 Time, Place, and Effective Time of Activities

Community partnership activities for training and mentoring Wordwall interactive media based on numeracy literacy for teachers at SDN 105290 Desa Kolam will be carried out for 9 (eight) months located on Jalan M. Yacob Lubis, Desa Kolam, Kec. Percut Sei Tuan, Kab. Deli Serdang.

This PkM activity will effectively last approximately two months. The implementation of Wordwall interactive media training based on numeracy literacy is carried out on two days, the first day includes theoretical activities about Wordwall interactive media based on numeracy literacy and making Wordwall interactive media based on numeracy literacy; the second day a workshop on designing Wordwall interactive media based on numeracy literacy with various teaching materials to be developed. Furthermore, teachers at SDN 105290 will be given the opportunity to conduct independent activities for two months to design numeracy literacy-based

Wordwall interactive media. Furthermore, an evaluation of the numeracy literacy-based Wordwall interactive media products that have been designed by teachers at SDN 105290 in Desa Kolam will be conducted.

Furthermore, the methods applied in this PkM program are lectures, demonstrations, and workshops. The lecture method is used to explain the basic introduction and important concepts in making Wordwall interactive media based on numeracy literacy. In this method, the materials and steps of developing Wordwall interactive media based on numeracy literacy will be given in a basic, concise and easy-to-understand manner. Meanwhile, the demonstration method was used to show the steps of Wordwall operation followed by the creation of numeracy literacy-based Wordwall interactive media. The demonstration was conducted directly at SDN 105290 Desa Kolam so that the teachers could immediately do it with the Wordwall application that had been downloaded.

Furthermore, the workshop was carried out by giving independent assignments to teachers to work independently and practice directly the design of Wordwall interactive media based on numeracy literacy. The teachers worked independently to design an interactive media Wordwall based on numeracy literacy which of course was accompanied by the instructors.

The mechanism for implementing this PkM program is carried out with the stages of activity planning, activity implementation and activity evaluation. The following will describe the stages that will be carried out.

A. Planning

In this planning phase, a meeting is held with partners to develop a schedule and prepare a program for the implementation of Community Service activities (PkM). Colloboration meetings with partners are conducted to organize the schedule and prepare the community service program, [8]. The implementation team will outline the objectives and procedures of the program to be implemented, starting from the initial stage to the completion of the activity. After that, a program socialization will be held by inviting the principal and all educators at the partner school. In the meeting, a detailed discussion will be held regarding the training mechanism that will be implemented.

B. Action

In this phase, the community service program was implemented by providing an introduction to the concept of interactive learning media and numeracy literacy-based learning. The theory of interactive learning media and numeracy literacy was delivered to the educators through presentation. After the presentation, a discussion was held to discuss the material that had been presented. The next step involved training and mentoring in making interactive learning media and numeracy literacy-based learning. Teachers at SDN 105290 were trained to understand the importance of improving their knowledge and skills in designing interactive learning media and numeracy literacy. Demonstrations on how to design and use interactive learning media and numeracy literacy were also conducted, training programs that enhance educators' social skills through community service learning is important [9] .

In the next stage, teachers were required to create interactive learning media and numeracy literacy-based learning. At this stage the teachers were accompanied by the implementation team.

C. Evaluation

In the product development phase of interactive learning media based on numeracy literacy, which has been produced by educators in partner schools, the product will undergo a review or evaluation process by the Community Service team. During the implementation phase,

educators received presentations and engaged in discussions on interactive learning media and numeracy literacy, followed by practical training and mentorship to enhance their design skills [10]. The team will provide feedback and recommendations for the improvement of the products that have been developed. At this stage, feedback will be given to the teachers about the products they have created if there are shortcomings, obstacles, or challenges in designing numeracy literacy-based interactive teaching media using Wordwall. The assessment of the numeracy literacy-based interactive teaching media product and the ability of teachers at SDN 105290 to design the teaching media, as well as the evaluation of its quality, will be measured based on the improvement of skills and creativity seen in partner schools.

3 Result and Discussion

Referring to the plan that has been prepared by the community service team, this activity is divided into three main stages, namely the preparation, implementation, and evaluation stages. The implementation of this program was carried out in accordance with the planning that had been determined by the implementation team. In the preparation stage, the implementation team held a meeting with the school, considering that this activity would involve teachers at SDN 105290 Desa Kolam. The purpose of the preparation stage was to discuss the material to be delivered, determine the number of participants involved, and develop a schedule and mechanism for implementing the activity.

As a result of the discussions held during the preparation stage, it was decided that the material related to numeracy literacy would be delivered starting in early June. The participants were asked to prepare everything needed for the training, including a computer or laptop, a microphone, and an internet connection with a minimum speed of 1 Mbps.

The materials that will be provided in this training activity include: Numeracy Literacy Learning and Utilization of Wordwall Interactive Media.

Research conducted by Maghfiroh in 2018 revealed that the use of Wordwall media has the potential to increase student interaction in learning activities. Wordwall media has the ability to be accepted by various groups, so that the information presented can be more easily understood. Based on the agreement between the implementation team and related parties, the training was scheduled on Thursday and Friday, June 6-7, 2024. In these sessions, participants were given one day to develop simple teaching materials using Wordwall media.

On Thursday, June 6, 2024, the event started at 09.00 with an opening session and remarks from the organizing team and the school. After the speeches, participants were asked to form groups in preparation for game activities aimed at practicing cohesiveness. After the game, the event continued with the delivery of material on making Wordwall teaching media and directed training to participants until 10:00. In this material session, the resource person also presented examples of Wordwall teaching media that focused on numeracy literacy.

The stages in making Wordwall teaching media consist of: selecting the template to be used, selecting the type of quiz to be used, and inserting teaching materials into the template.

Fig. 1. Submission of Wordwall Design Material

The next material will be provided on the following day, Friday, June 7, 2024. The topic to be discussed is numeracy literacy. In this session, the basic concepts of numeracy literacy will be introduced. For about an hour, participants were given the opportunity to ask questions about the application of numeracy literacy at the elementary school level.

The following is a documentation of some of the outputs made by the participants, namely the results of the Wordwall teaching media made by the participants.

Fig. 2. Example of Wordwall Created by Participants

HASIL KARYA PESERTA PELATIHAN			
NO	NAMA	KELAS	KARYA
1	Darmawati Silitonga		https://wordwall.net/resource/74410733
2	Mega Hairani	III	https://wordwall.net/play/74409/172/322
3	Erlinawati		https://wordwall.net/play/74376/429/364
4	Yuliana	II	https://wordwall.net/play/74408/783/885
5	Pipin Tri Kayanti	II	https://wordwall.net/play/74409/035/584
6	Rizki Khairani	V	https://wordwall.net/play/74385/334/750
7	Lia Lestari		https://wordwall.net/play/74389/920/662
8	Haita Sovia Sitindaon	VI	https://wordwall.net/play/74411/178/457
9	Eka Novita	IV	https://wordwall.net/play/74388/272/964
10	Wan Andrianti		https://wordwall.net/play/74365/388/109
11	Sofiyan		https://wordwall.net/resource/74364971
12	Ihda Rahmi Lubis		https://wordwall.net/play/74404/985/522

Fig. 3. Link to Participant's Work

After the implementation of the activity, participants were asked to provide testimonials about the training that had been carried out. The testimonials were recorded in video format. The participants expressed that they found the training very useful and hoped that similar activities could be held again in their schools.

4 Conclusion

Community Service (PkM) of Universitas Negeri Medan (Unimed) at SDN 105290 Desa Kolam, Kec. Percut Sei Tuan, Kab. Deli Serdang related to mentoring and training for teachers in making teaching materials using Wordwall based on literacy and numeracy. The service partners felt the usefulness of the activity by facilitating all activities well.

The first activity was a Wordwall operation guidance activity for teachers of SDN 105290 Desa Kolam, Kec. Percut Sei Tuan, Kab. Deli Serdang by resource persons. The participants of the activity amounted to about 20 teachers who were actively teaching at SDN 105290 Desa Kolam school. Regarding the operation of Wordwall, all participants were active in groups and individually in practicing the creation of Wordwall teaching materials as shown by the resource person.

The second activity is making Wordwall teaching media based on numeracy literacy based on creativity and several subjects held by teachers. The team of lecturers consisting of Mathematics Study Program lecturers and students along with resource persons selected 3 works as best practices and then gave prizes to 3 teachers with selected works. The next stage is one of the best practices presenting their work in front of the class.

The third activity was the delivery of numeracy literacy material by the resource person, and followed by a question and answer session by teachers and resource persons.

Suggestions given by the PkM team so that the use of Wordwall teaching media based on numeracy literacy is sustainable. Teachers at SDN 105290 Desa Kolam can develop teaching media so that student involvement in the classroom will increase. This activity can be expanded and deepened with a number of more interesting teaching media and with a variety of materials. With the many teaching media templates in Wordwall, teachers can create interactive and varied teaching media.

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