

Enhancing Teacher Competency In Using Technology-Based Interactive Learning Media Through Wordwall Training At Tsanawiyah Dharut Thalibin

Ida Widaningrum^{1*}, Indah Puji Astuti¹, Khoirur Nurfitri¹, Rifqi Rahmatika Az-Zahra¹, Dyah Mustikasari¹, Ali Selamat², Bambang Widiyahseno³

¹ Department of Informatics Engineering, Universitas Muhammadiyah Ponorogo, Indonesia

² Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia

³ Government Science Department, Universitas Muhammadiyah Ponorogo, Indonesia

* Corresponding Author:

Email: iwidaningrum.as@gmail.com

Abstract.

This community service focuses on training teachers to use technology-based interactive learning media, especially the Wordwall platform, for Tsanawiyah Dharut Thalibin, Sampung, Ponorogo, and East Java. This training aims to improve teachers' skills in creating interactive digital worksheets to overcome student boredom and increase active participation in learning. The training was carried out in several stages, starting from problem identification and planning to evaluation. The results of this training showed that most teachers had not previously used technology-based learning media. After the training, teachers can use the Wordwall platform to create interactive learning activities, such as quizzes and games, which are expected to increase student engagement and create a more dynamic learning atmosphere. The evaluation showed increased teachers' understanding and skills in interactive learning media.

Keywords: *Interactive learning media, Wordwall, Digital-based learning, Student involvement in education and Fun Learning.*

I. INTRODUCTION

Tsanawiyah Dharut Thalibin is an Islamic educational institution at the junior high school level in Sampung, Ponorogo, East Java, Indonesia. It is part of the Dharut Thalibin Islamic boarding school. This school combines the national education curriculum with in-depth Islamic religious education, covering subjects such as interpretation, hadith, fiqh, morals, Arabic, and tool science (nahwu and shorof), as well as general subjects such as Mathematics, Science, Social Studies, Indonesian, and English [1]. In addition, this school emphasizes the development of Islamic character through daily activities at the boarding school, such as congregational prayer and reciting the Koran. In addition to academic learning, students are involved in various extracurricular activities such as arts, sports, and skills to develop their potential. With a combination of religious and general education, Tsanawiyah Dharut Thalibin aims to produce a generation with noble character and discipline, ready to face modern life's challenges with a solid educational background. The application of technology in learning allows teachers to increase student engagement and academic success [2], [3]. Through digital platforms, students can collaborate with peers, explore creativity through technological features, engage in the thinking process, participate in learning, and access information from various sources [4], [5]. Although the application of technology changes the learning environment to be more student-centered, the role of teachers remains crucial in guiding understanding, providing support, and ensuring that students are active and achieve learning goals [6].

Overall, both students and teachers work together in technology integration, which is considered to positively impact learning satisfaction, increase engagement, and facilitate learning success [7]. Traditional learning systems often do not attract students' attention, so students quickly get bored with monotonous teaching methods [8]. This condition requires a creative approach so that students are more interested in participating in learning. One relevant solution is to create exciting learning through technology, especially online-based learning. In the digital era, interactive technology-based learning media can help create a more dynamic learning experience oriented toward student involvement [8]–[10]. One form of interactive media

that can be used is a digital-based worksheet that supports active learning [11], [12]. Online-based learning media offers many advantages, such as ease of access, flexibility of time, and the ability to adjust materials according to student needs [13]–[15]. Common online learning platforms include Google Classroom, Kahoot!, and Wordwall. Enjoyable, interactive learning is essential to increase students' interest in participating in the learning process [16].

However, the limitations that require students not to bring cell phones or gadgets during learning require practical solutions. Therefore, this training is aimed at teachers introducing interactive learning methods using worksheets [17]–[19]. With this approach, it is hoped that teachers can create a more dynamic and enjoyable learning atmosphere so that students remain actively involved even without using digital technology [20], [21]. One solution that can be applied is to use the Wordwall platform, which facilitates the creation of various interactive games for learning purposes. Wordwall [22] provides learning formats such as quizzes, matching games, and crosswords, which teachers and students can easily access via desktop or mobile devices [23]–[25]. In this context, this community service focuses on implementing Wordwall training for teachers at Tsanawiyah Dharut Thalibin to improve teacher skills in utilizing interactive learning media.

II. METHODS

The community service program at Tsanawiyah Dharut Thalibin Sampung, Ponorogo, East Java, Indonesia, provides training in interactive learning methods using worksheets. The first stage is to analyze the situation at school, including interviews with teachers to understand the current learning conditions and the teacher's ability to use interactive learning media. The next step is training in the use of Wordwall media. The stages that have been carried out follow the flow:

1. Problem Identification:

The initial stage of this service is to observe the classroom learning process and students' needs. The service team held discussions with related parties who manage this school to gain an understanding of the learning process. From the results of interviews and discussions, it was discovered that the problem was that the learning process was still carried out manually. Because the learning process was carried out in two stages, namely at school and at the boarding school, students seemed less enthusiastic about participating in class. Many students seemed bored and sleepy because they had less rest time, and the learning method seemed less interesting. In addition, students were also banned from bringing cell phones during the learning process. Therefore, after discussing this with the school, the team decided to train its teachers in using interactive learning media. We also discussed implementing this activity with representatives from UTM partners, as shown in Figure 1.

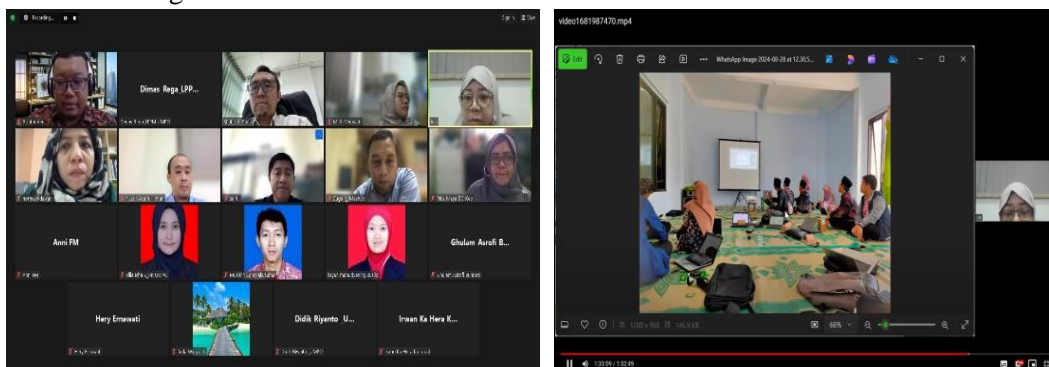


Fig 1. Discussion with UTM regarding worksheet-based learning media training

2. Activity Planning:

After identifying the problem, the community service team prepared an activity plan to solve the problems that arose from the interview results. Previously, the team reviewed the level of teacher understanding of online learning media, whether they were used to using it, sometimes, or not at all. Finally, the results of the interview decided to hold training on making worksheet-based teaching media that are easily obtained online, namely Wordwall.

3. Implementation:

The activity was carried out in the third week of August 2024. The training was divided into 3 stages, namely pretest, introduction, and creation of worksheet-based teaching media (wordwall), finally the task of making worksheets with themes according to their fields and closed with a post-test.

4. Evaluation:

Evaluation of this online-based teaching media creation training by providing a post-test, to measure the level of teacher understanding after the training was given and whether there was an increase in understanding and skills. In addition to the post-test results, an evaluation was carried out for the follow-up to this training to provide more optimal results with the aim that the learning carried out by the teachers could improve the quality of learning.

III. RESULT AND DISCUSSION

The initial stage of the training began with a pretest, to determine the extent of the teachers' knowledge of online media-based learning. From the test results, it turned out that most of the teachers had never used teaching media to help teach in the classroom. Therefore, the training began by first introducing what online-based teaching media is, its types and kinds, how to access it. After the introduction stage, it was continued with the direct creation of worksheet-based teaching media, one of the easiest of which is wordwall. The online-based teaching media training held at Tsanawiyah Dharut Thalibin, was attended by 18 teachers from various subject areas. The initial stage of the training began with a pretest, to determine the extent of the teachers' knowledge of online media-based learning. From the test results, it turned out that most of the teachers had never used teaching media to help teach in the classroom. Therefore, the training began by first introducing what online-based teaching media is, its types and kinds, how to access it as seen in Figure 2.

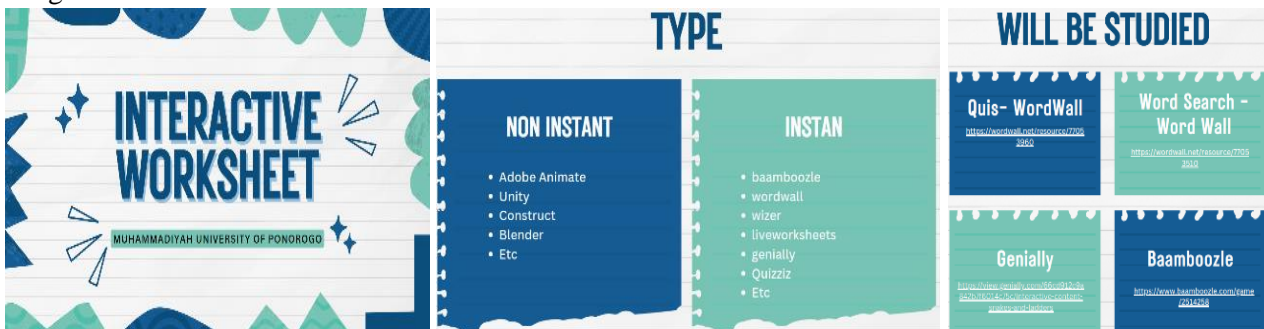


Fig 2. Introduction to worksheet-based learning media.

After the introduction stage, it is continued with the direct creation of worksheet-based learning media, one of the easiest of which is wordwall. At this stage, participants are guided from opening the wordwall website (<https://wordwall.net/>), signing up, starting activities, selecting templates and starting to create..

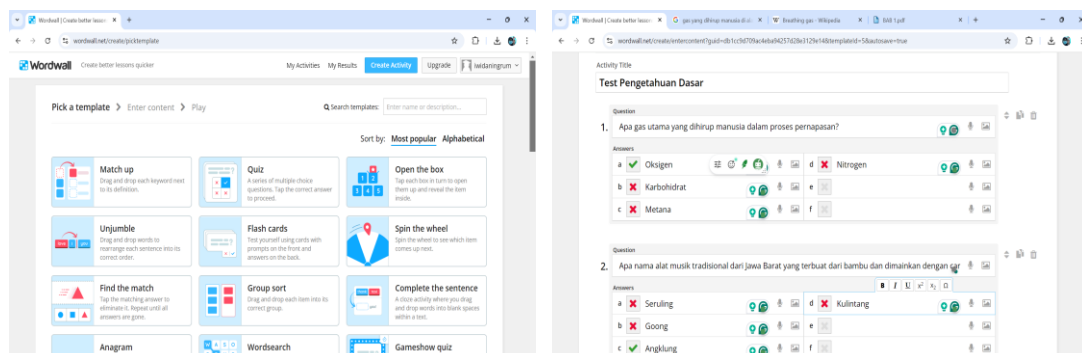


Fig 3. Process of creating a quiz with a wordwall

Figure 3 shows the process of creating a wordwall, namely after this sign, you will be faced with the create activity menu which displays various templates available on the wordwall. By selecting one of the templates, we can start creating it, one example is creating a quiz.

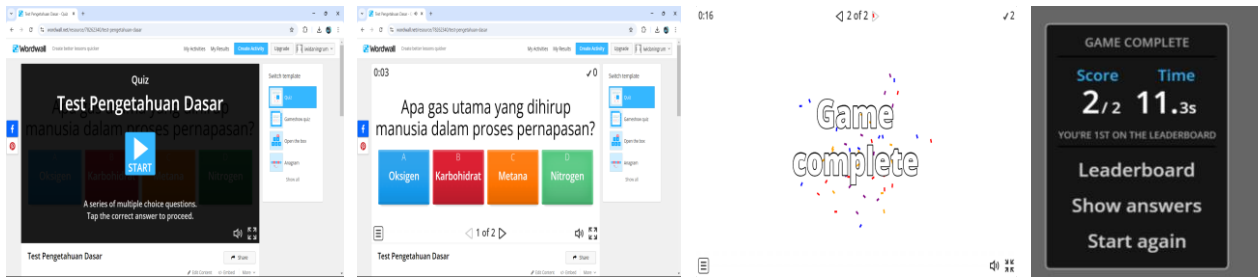


Fig 4. Final results of the wordwall-based quiz

Figure 4 illustrates the results of a wordwall in the form of a quiz when displayed in a ready-to-use form. Also displayed is the display of questions and answer choices provided, so that students only need to choose one of the answers provided. Furthermore, if the quiz is finished and all answered by students, a statement will appear that the game is finished. Finally, the score will appear, so that students will know how many answers are correct and how many answers are wrong and the ranking score obtained by the student. During the training, participants were divided into 2 groups. Each group participated in practical activities using wordwall, focusing on the material concept agreed upon by the group.

The practice of using it allows teachers to try out the templates provided directly and be creative according to their creativity. In addition, by practicing directly, if there are obstacles or difficulties when making it, they can be discussed together. Team members facilitate the learning process by providing guidance and answering questions, ensuring that participants fully understand the training material. This interactive teaching media creation training is expected to not only improve students' understanding of the material provided by the teacher, provide an interesting learning atmosphere, increase students' enthusiasm for learning and can also provide opportunities for teachers to be creative in pouring out their creativity and improving their teaching competence. The training activity ended with a group discussion where teachers shared their observations and insights, which strengthened the learning outcomes.



Fig 5. Atmosphere of the training

Figure 5 depicts the atmosphere of the training on the use of online teaching media based on worksheets attended by teachers at Tsanawiyah Dharut Tholibin. Participants were very enthusiastic and actively involved in the training, working on a wordwall project with a predetermined theme in groups accompanied by a facilitator. The online teaching media-based teaching approach is expected to demonstrate effectiveness in encouraging a deeper understanding of the subject matter while increasing students' enthusiasm in participating in learning. Figure 5 also shows a group photo session after the training.

IV. CONCLUSION

The technology-based interactive learning media training at Tsanawiyah Dharut Thalibin positively impacts teachers' use of technology to improve the quality of learning. Most teachers were not familiar with the use of digital media before. Still, after the training, they were able to use Wordwall as an interactive media to create more exciting and effective learning. The evaluation results showed an increase in teacher skills in using this media, which is expected to improve the quality of education and student participation. This training also allows teachers to be more creative in developing their teaching methods.

REFERENCES

- [1] A. Asmuri, "Pendidikan multikultural (telaah terhadap sistem pendidikan nasional dan pendidikan agama islam)," *POTENSIA J. Kependidikan Islam*, vol. 2, no. 1, pp. 25–44, 2017, doi: 10.24014/potensia.v2i1.2530.
- [2] A. S. Saefullah, "Pendidikan Karakter Nasionalis dan Berintegritas pada Kurikulum Madrasah Tsanawiyah Al-Ishlah Persis Kabupaten Majalengka," *Pendek. J. Pendidik. Berkarakter*, vol. 7, no. 2, pp. 42–51, 2024.
- [3] K. Syaibani and M. A. Zamroni, "Implementasi manajemen kurikulum terpadu di madrasah tsanawiyah," *JOER J. Educ. Res.*, vol. 1, no. 1, pp. 26–35, 2021.
- [4] E. P. Ningsih, "Implementasi Teknologi Digital dalam Pendidikan: Manfaat dan Hambatan," *J. EduTech*, vol. 1, no. 1, pp. 1–8, 2024, doi: 10.62872/qbp1fg61.
- [5] S. Said, "Peran teknologi digital sebagai media pembelajaran di era abad 21," *J. PenKoMi Kaji. Pendidik. Dan Ekon.*, vol. 6, no. 2, pp. 194–202, 2023, doi: 10.33627/pk.62.1300.
- [6] H. S. Wibowo, *Pengembangan Teknologi Media Pembelajaran: Merancang Pengalaman Pembelajaran yang Inovatif dan Efektif*. Tiram Media, 2023.
- [7] I. Siregar, M. Mukhtar, K. Anwar, M. Y. Mahmud, and R. S. Munte, "Dampak Transformasi Digital Terhadap Prestasi Kerja Dan Keunggulan Bersaing Di Sekolah Berbasis Islam Terpadu," *J. Rev. Pendidik. dan Pengajaran*, vol. 7, no. 3, pp. 8644–8655, 2024, doi: 10.31004/jrpp.v7i3.30386.
- [8] F. Adawiyah, "Variasi Metode Mengajar Guru Dalam Mengatasi Kejenuhan Siswa Di Sekolah Menengah Pertama," *J. Paris Langkis*, vol. 2, no. 1, pp. 68–82, 2021, doi: 10.37304/paris.v2i1.3316.
- [9] S. Sukana, "Transformasi Pengawas Pendidikan Agama Islam (PAI) Di Era Digital: Tantangan Dan Peluang Tahun 2024," *J. Pendidik. Tambusai*, vol. 8, no. 1, pp. 3955–3965, 2024, doi: 10.31004/jptam.v8i1.13000.
- [10] F. Raniyah, N. Hasnah, and G. Gusmaneli, "Pengembangan Strategi Pembelajaran Kreatif dan Inovatif Pendidikan Agama Islam (PAI) di Era Digital," *Dewantara J. Pendidik. Sos. Hum.*, vol. 3, no. 2, pp. 29–37, 2024.
- [11] N. Sintesa and S. Yulaikhah, "Peningkatan Kompetensi Guru Dalam Penilaian Pembelajaran Melalui Penyusunan Digital Students' worksheet," *J. Pendidik. dan Kebud.*, vol. 2, no. 1, pp. 21–35, 2022.
- [12] A. Wijayanti and T. Ernawati, "Bagaimana Menerapkan Life Skills dan Ngerti, Ngrasa, Nglakoni Pada Worksheet Digital Berbasis Integrated-Science," *J. Pijar Mipa*, vol. 16, no. 1, pp. 1–7, 2021.
- [13] S. N. R. Siburian and Y. S. Mahmud, "Primary school teacher's perception of game-based learning in online learning: The advantages and challenges," *IJECA (International J. Educ. Curric. Appl.)*, vol. 5, no. 2, pp. 116–132, 2022, doi: 10.31764/ijeca.v5i2.8694.
- [14] I. K. Sudarsana, N. W. Arini, G. N. Mastini, N. M. Sukerni, and L. D. Pusparini, *Learning media: The development and its utilization*. Yayasan Ahmar Cendekia Indonesia, 2020.
- [15] A. Abdurrahmansyah, H. Sugilar, I. Ismail, and D. Warna, "Online learning phenomenon: From the perspective of learning facilities, curriculum, and character of elementary school students," *Educ. Sci.*, vol. 12, no. 8, p. 508, 2022.
- [16] N. Mokhtar, L. Z. Xuan, H. F. Lokman, and N. Noor Hayati Che Mat, "Theory, Literature Review, and Fun Learning Method Effectiveness in Teaching and Learning," *Int. J. Soc. Sci. Educ. Res. Stud.*, vol. 3, no. 08, pp. 1738–1744, 2023, doi: 10.55677/ijssers/V03I8Y2023-30.
- [17] B. Gan, T. Menkhoff, and R. Smith, "Enhancing students' learning process through interactive digital media: New opportunities for collaborative learning," *Comput. Human Behav.*, vol. 51, pp. 652–663, 2015.
- [18] B. Allan, *Blended learning: Tools for teaching and training*. Facet Publishing, 2007.
- [19] A. R. Sattarov and N. F. Khaitova, "Mobile learning as new forms and methods of increasing the effectiveness of education," *Eur. J. Res. Reflect. Educ. Sci. Vol.*, vol. 7, no. 12, 2019.
- [20] Z. Dörnyei and C. Muir, "Creating a motivating classroom environment," *Second Handb. English Lang. Teach.*, pp. 719–736, 2019, doi: 10.1007/978-3-030-02899-2_36.
- [21] A. Haleem, M. Javaid, M. A. Qadri, and R. Suman, "Understanding the role of digital technologies in education: A review," *Sustain. Oper. Comput.*, vol. 3, pp. 275–285, 2022, doi: 10.1016/j.susoc.2022.05.004.
- [22] V. E. Ltd and L. House, "Wordwall," 2006. <https://wordwall.net/>.
- [23] S. Purnamasari, F. Rahmanita, S. Soffiatun, W. Kurniawan, and F. Afriliani, "Bermain Bersama Pengetahuan Peserta Didik Melalui Media Pembelajaran Berbasis Game Online Word Wall," *J. Pengabd. Masy.*, vol. 3, no. 1, pp. 70–77, 2022, doi: 10.32493/al-jpkm.v3i1.17052.
- [24] J. Shiddiq, "Inovasi Pemanfaatan Word-Wall Sebagai Media Game-Based Learning Untuk Bahasa Arab," *JALIE; J. Appl. Linguist. Islam. Educ.*, vol. 5, no. 1, pp. 151–169, 2021, doi: 10.33754/jalie.v5i1.337.
- [25] A. Imron, D. A. Pamungkas, M. I. Marzuqi, and D. A. Larasati, "Pengaruh penggunaan media pembelajaran Word Wall terhadap motivasi belajar IPS," *JIPSINDO (Jurnal Pendidik. Ilmu Pengetah. Sos. Indones.)*, vol. 10, no. 1, pp. 43–56, 2023, doi: 10.21831/jipsindo.v10i1.53199.