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# Training Chemistry Teachers' Understanding in Creating Learning Evaluation Media Using the Wordwall Application

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**Abstract:** This community service activity aims to assist chemistry teachers in the Banjar Regency Chemistry Teachers Working Group (MGMP) in developing learning evaluation materials. This training aims to improve the quality of learning in the Independent Curriculum for chemistry teachers in creating learning evaluations using Wordwall. Based on the questionnaire results filled out by MGMP chemistry teachers in the Banjar Regency, it was found that 50% of teachers stated that they were skilled enough in using technology in preparing learning evaluation materials. The methods in this activity are divided into three stages: pre-implementation, implementation, and post-implementation. Considering this condition, the community service team needs to address the problems teachers face by conducting training on preparing IT-based teaching materials held at SMAN 1 Martapura with two offline meetings attended by 21 teachers. Based on the training results, there was an improvement in teachers' understanding of creating interactive evaluation materials using Wordwall, and teachers' responses to the activity showed a good category. The interactive evaluation products produced can be used to assist the chemistry learning process.
**Keywords:** chemistry; evaluation; technology; wordwall



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## INTRODUCTION

Learning evaluation is one of the important means to achieve teaching and learning goals. As managers of teaching and learning activities, teachers can determine students' abilities, the appropriateness of teaching methods used, and students' success in achieving the learning objectives set through evaluation activities. Evaluation is collecting data to determine to what extent, in what aspects, and how educational objectives have been achieved (Nabillah & Abadi, 2020;

Novalinda et al., 2020; Purnomo et al., 2022).

The ability to conduct learning evaluations is a basic skill that educators and prospective educators must master as one of their professional competencies. Evaluation in education is very important and must be done carefully and meticulously to determine whether learning objectives have been achieved and whether the methods used have been successful (Barnabas et al., 2022; Mahirah, 2017). Moreover, in the current era of education, which is a technological era, all learning can be done online outside school hours. This requires educators to be able to transform conventional evaluation media into online evaluations that are more interesting yet still achieve learning objectives (Nizaruddin et al., 2021; Nurzannah & Setiawan, 2020).

The current era is very advanced in creating learning media through digital learning technology, yet many teachers have not utilized it. Based on initial data from questionnaires filled out by chemistry MGMP teachers in Banjar Regency, it was found that 50% of teachers stated that they were skilled enough in using technology in preparing chemistry learning evaluation materials. Considering this condition, the community service team needs to address the problems faced by these partners by conducting training on the preparation of IT-based evaluation materials in the wetland area for the Banjar Regency Chemistry Teachers Working Group to improve the quality of learning in the Independent Curriculum, one of the website applications used is Wordwall.

Latifah & Damayanti (2022) stated that the wordwall.net platform is an application that can be used as an interesting educational game. Thus, it is suitable for designing and reviewing learning. Through this platform, teachers can create evaluations with a new nuance. Teachers can also sharpen their innovative ideas in making evaluation tools because they can include desired images and attachments. In addition, teachers and students can find out the correct or incorrect values, sequences, and answers after the evaluation is completed. This wordwall.net platform is very helpful for teachers in creating evaluation tools that students will well receive. From the elaboration that has been explained, it is hoped that this evaluation tool can be a solution for teachers in conducting evaluations with effective and practical methods both offline and online (Latifah & Damayanti, 2022; Marhaeni et al., 2023; Sari & Yarza, 2021).

The advantages of this application are that it has many templates that teachers can use, the application is free to use, games or quizzes that have been created can be directly shared through links or QR codes, and games or quizzes designed can be printed in pdf format, making it easier for students with network constraints (Sari & Yarza, 2021). The use of wordwall media in learning can increase students' interest, learning motivation (Gandasari & Pramudiani, 2021; Nissa & Renoningtyas, 2021), understanding (Surahmawan et al., 2021), and learning outcomes (Hartati et al., 2020; Khairunisa, 2021; Maghfiroh, 2018; Wafiqni & Putri, 2021).

Based on the situational analysis, several problems faced by partners can be identified. Namely, teachers' understanding of teachers' skills in using technology in preparing chemistry learning evaluations is still in the sufficient category. Therefore, the community service team conducted activities in the preparation of evaluation media through the Wordwall application to improve the quality of learning in the Independent Curriculum.

## METHOD

The implementation method of this activity consists of 3 stages: pre-implementation, implementation, and post-implementation (Isnaini et al., 2021). This training activity was conducted in 2 offline meetings on August 2nd and 9th, 2023, at SMAN 1 Martapura. The total number of participants in this activity was 21 of the Banjar Regency Chemistry Teachers Working Group chemistry teachers. The success indicators of this program are based on two aspects: (1) 76% of chemistry teacher participants can create IT-based chemistry evaluation materials in the wetland environment, and (2) there is an improvement in the understanding/knowledge of chemistry teachers about creating chemistry evaluation materials using Wordwall in the wetland environment, which is categorized as at least good. In addition, an evaluation of the implementation of the community service program was conducted using a questionnaire. The detailed community service activities are presented in Figure 1.

The pre-implementation phase began with checking the profile of the community service partners, namely the Banjar Regency Chemistry Teachers Working Group teachers, to ensure that the needs match the problems that arose.

**Activities**

The material presentation delivered by the speakers (1) Independent Curriculum, (2) Preparation of assessments using Wordwall, and (3) Participant product presentation. The training was implemented in 2 consecutive offline meetings on August 2nd and 9th, 2023.

**Post-Activity**

In the final stage of the activity, participants were given a questionnaire to analyze their understanding of the training material and the implementation of the training activities.

Figure 1 Mechanism of activity implementation

## RESULTS AND DISCUSSION

This community service activity aims to assist teachers in preparing online evaluation materials through the Wordwall application. This activity begins with coordinating with relevant parties, namely the chairperson or representative from the Chemistry Teachers Working Group in the Banjar Regency (this activity includes the pre-implementation stage).

The next activity was implementation, which was conducted offline at SMAN 1 Martapura. The training activity was held on August 2nd and 9th, 2023, and was attended by 21 teachers from the Banjar Regency Chemistry Teachers Working Group. The first meeting was held on August 2nd, 2023, and the documentation of the first meeting is shown in Figure 2.

Figure 2 Documentation of the first meeting activity

Before starting the material presentation, there was an opening remark and official opening of this activity delivered by the chairperson of the Banjar Regency Chemistry Teachers Working Group, Mrs. Yuni Arina Hasta Sari, S.Pd., and the head of the community service team of the Chemistry Education Study Program, FKIP ULM, namely Dra. Rilia Iriani, M.Si. In this first meeting, the material presented was an explanation of Wordwall, the advantages of Wordwall, and the steps to use it. The documentation of the community service team with the Banjar Regency

Chemistry Teachers Working Group is shown in Figure 3.

Figure 3 Documentation of a photo with the teachers of the Banjar Regency Chemistry Teachers Working Group

The participants followed the instructions on creating an account or logging in to the evaluation material by first opening the Wordwall website, guided by the speaker. The second meeting took place on August 9th, 2023. This second meeting presented the steps to log in to the Wordwall application website, the features of Wordwall, and the steps to create evaluation materials with the Wordwall application. In this second meeting, one of the teachers followed the instructions on how to log in to the application and was guided by the speaker. The documentation of the community service team with the Banjar Regency Chemistry Teachers Working Group in the second meeting is shown in Figure 4.

Figure 4 Documentation of the second meeting activity

The second activity was closed with feedback from Dra. Rila Iriani, M.Si, is the head of the community service team of the Banjar Regency. The documentation of the group photo at the second meeting is shown in Figure 5.

Figure 5 Documentation of a group photo at the second meeting

The next activity is to evaluate the strengths and weaknesses of this activity to describe the quality of implementation. The average scores and achievement percentages are presented in Table 1.

Table 1 Results of evaluation calculation of activity implementation

| Aspect | Percentage (%) | Category |
|---|---|---|
| Expertise and readiness | 85.12 | Very Good |
| Usefulness of the presented material | 86.51 | Very Good |
| Relevance of the presented material | 84.13 | Very Good |
| Relevance of training implementation to participant expectations | 82.12 | Good |
| Suitability of facilities provided during the training | 86.31 | Very Good |

Based on Table 1, it is known that according to the participants, the expertise and readiness of the community service team in this activity are very good, the usefulness of the presented material is very good, the relevance of the presented material is also very good, the suitability of the

training implementation with the participants' expectations is good, and the suitability of the facilities provided during the training is good or has been appropriate. In addition to the satisfaction questionnaire used to describe the quality of the implementation, an evaluation of the participant's understanding of the training in this activity was also conducted. The evaluation was conducted using a questionnaire to describe the quality of the participants' understanding. The results showed that after participating in the training, 76.00% of the participants understood the practice of making evaluation materials through Wordwall, and this training could increase the participants' understanding in creating them. Participants did not have difficulty in creating evaluation materials because the features on Wordwall are simple and easy to apply. Some of the participants' products are shown in Figure 6.


https://wordwall.net/resource/58965139/kimia/ikatan-kimia

(a)


https://wordwall.net/resource/58964685/kimia/soal-materi-kimia-hijau

(b)

Figure 6 Participants' products on learning evaluation using Wordwall

The features available on Wordwall vary, including the game and quiz feature that educators can use to convey learning evaluations. This application is suitable for educators to create learning assessment methods; this game can be played offline with Printable facilities (Khairunisa, 2021). The advantages of the Wordwall application, according to Mahyudi (2022), include various features, easy access, and a more attractive appearance, making students who play it prefer the presented games. Furthermore, another advantage of this application is that the designed games can be printed in PDF format, making it easier for students with network constraints. This learning evaluation software offers many games, including classic games such as quizzes and crosswords (Sun'iyah, 2020).

According to Sari & Yarza (2021), the advantages of Wordwall include being free for the basic option with several templates, and the games that have been created can be directly shared through WhatsApp, Google Classroom, or others. Another advantage is that the games that have been created can be printed in PDF format, making it easier for students with network constraints. This aligns with Putri (2020), who stated that Wordwall can help students understand learning materials online and is easy to use to determine students' achievements or learning abilities.

In addition to the advantages of the Wordwall application, there are also disadvantages, including that the application is not free for the basic option with only five template choices. In contrast, the rest of the templates are

paid (Sun'iyah, 2020). According to Elyas et al. (2021), creating games in Wordwall takes quite a long time, and because of students' enthusiasm, teachers may be overwhelmed in creating evaluation media. Furthermore, the evaluation media produced can only be viewed because it is visual, and a lot of time is wasted when using this media for learning (Agus et al., 2021). According to research conducted by Widianti & Sari (2022), weaknesses of the product, such as worksheets based on creative thinking skills using the maze chase-word wall educational game, can only be accessed if you have internet and can only be accessed if you have a link.

The media research results conducted by Putri & Hamimah (2023) stated that learning media in the form of interactive multimedia Wordwall is valid, practical, and effective to be used in the learning process. This research is in line with Hermiyanto & Wahyudi (2022), who stated that the POMEWALL learning media application using Wordwall is valid and effective to be used in learning. Based on the research conducted by Hidayah & Prasetyo (2022), the thematic educational game media based on the web Wordwall combines classrooms to improve student learning outcomes.

The community service activities at the Banjar Regency Chemistry Teachers Working Group went very well. This can be seen from the enthusiasm of the teachers and the results of the responses given to the implementation of the training. This indicates that the teachers positively welcomed the activities that have been carried out.

## CONCLUSION

Through preparing evaluation materials using Wordwall, teachers can create interactive evaluation materials with a 76% understanding and receive good responses. This training can improve teachers' understanding of creating evaluation materials using Wordwall, and the products produced can be used to assist the chemistry learning process.

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