



Wordwall Interactive Media Training: Optimization of Digital-Based Learning Media for German Teachers in Besuki Region

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Abstract. As learning facilitators, teachers need to be introduced to a wide variety of learning media that can support the learning process to be more attractive, covering German teachers in the Besuki area. In fact, there were situations related to the lack of German vocabulary owned by students that need to be immediately resolved. On the other hand, teachers in this area not only faced difficulties in monitoring student activities and their understanding in online learning, but teachers also possessed minor knowledge about creating interactive digital media for their classrooms. Wordwall, one of the digital-web-based interactive learning media, can also be used by teachers to teach German vocabulary to their students. Therefore, the training in creating interactive learning media using the Wordwall application was expected to provide assistance and positive impressions during the learning process to teachers and their students. This program was carried out in a blended model, a combination of online and offline meetings including six stages of activities, namely program socialization to the target community, arrangement of material and evaluation instruments, trainer presentation, accompaniment in media making, trainee presentation, and evaluation. In the evaluation stage, questionnaires were used to obtain the data from the trainees, which were then analyzed descriptively. The result depicts that there is a significant improvement in the proficiency level of German teachers in the creation of interactive learning media by using Wordwall. 70% of participants revealed that they are not only more proficient but also more confident in creating interactive learning media by using the introduced application.

Keywords: training · interactive media · vocabularies · a German teacher

1 Introduction

Vocabulary proficiency in an individual has a strong influence on the individual's perspective and effective communication to the world around him [1]. As part of language learning, vocabulary can be passive or active. A word is considered passive if it is rarely or never used. On the other hand, a word is considered active if it is often used to communicate, both for speaking and writing. Passive vocabulary has the potential to be easily forgotten. In the realm of foreign language learning, there is a lot of convincing

evidence showing that the weak ability in individual vocabulary has a negative impact on the success of oral and written communication. The limited vocabulary owned by students makes it difficult for them when asked to draft German essays [2]. The lack of vocabulary knowledge is also a factor that makes it difficult for students to speak German [3].

This is also in line with what the head of the German Teacher Community (Musyawarah Guru Mata Pelajaran/MGMP) in the ex-residence of Besuki said, that students often meet difficulties in learning German vocabulary both orally and in writing, so that vocabulary learning strategies are always the subject of discussion in the community. In addition, the COVID-19 pandemic that has occurred since the beginning of 2020 has encouraged teachers to continue the learning process under any conditions.

Making changes in the learning process into an online mode during an epidemic pandemic challenges teachers as facilitators to keep overcoming difficulties while developing the skills owned by their students [4]. Not only challenges, but teachers also face the threat of not achieving learning objectives because teachers have limitations in monitoring students' activity in the learning process because students cannot fully be considered self-regulated learners by showing reliable performance even without direct supervision from teacher [5].

It is undeniable that as Generation Z who was born amid the development of digital technology, students prefer technology-based learning. Interactive and technology-based digital learning media are currently students' favourite [6]. With this condition, teachers are challenged to maximize the potential of their students by presenting what they like in the learning process [7].

Compared to other foreign languages, German is included in the group of foreign languages studied by high school/MA/MK students the most. In the former Besuki residency area, there are 15 schools that provide German language learning for their students. The former Besuki residency area was known as Oost Hoek by the Dutch colonial government because of its location on the eastern tip of the island of Java [8]. This area includes four cities, namely Banyuwangi, Jember, Situbondo, and Bondowoso. The closest city to Malang State University is Jember which is 208 km away, while the furthest city is Banyuwangi with 310. German language teachers in this area, before the COVID-19 pandemic, held regular meetings once a month by taking turns from one city to another. From the results of interviews conducted at the planning stage, the teachers admitted that they had never received any training involving the academic community of universities related to efforts to improve the quality of learning. This existing potential should be used, and its development should be encouraged.

From the description of the analysis of the situation, it can be found that the problems faced by German language teachers in the former Besuki residency area include: (1) situations related to the lack of German vocabulary owned by students that need to be immediately resolved, (2) changes in learning modes from face-to-face to online which require teachers to immediately adapt learning media to the current situation, (3) teachers' difficulties in monitoring students' activities and understanding in online learning, and (4) the lack of teachers' knowledge on interactive digital media that can be made independently by teachers and applied in the classroom.

Departing from this background, it is necessary to conduct a training for teachers who are members of the German Teacher Community from the former Besuki Residency area to create interactive ICT-based media for vocabulary learning. Furthermore, teachers will also be trained to create interactive learning media according to the themes taught in schools. The Wordwall application was chosen by considering the various advantages owned by the application.

Wordwall can basically be seen as an interactive medium and a print medium. Wordwall is interactive because it can be played on any web-enabled device, such as a computer, tablet, smart device, or interactive whiteboard. The games available can be played individually by students or led by the teacher with students taking turns at the front of the class. It is said to be printed media, because the questions given in the interactive media can be printed in PDF format, either as a support for the interactive media itself or when used offline [9]. Learning using the Wordwall application has created many positive impacts in vocabulary learning, with the help of Wordwall students' vocabulary proficiency can increase [10, 11].

There are various game models offered by Wordwall to practice vocabulary, such as matching pairs, missing words, arranging random letters (anagrams), true or false, and memory games (open the box). In making this interactive media, the five principles of vocabulary learning remain to be considered, as stated in reference [12] in the following explanation. As an element that is always involved in language activities, this vocabulary learning will begin with word exposure (define) which is then continued with efforts to find the meaning of words through context (context). By using different game modes as mentioned above, trainees are challenged to create media so that students can find words by associating the unfamiliar word with previously known words (connection). Through unjumble mode, the teacher will produce games related to word order (morphology). On the fifth principle, namely semantic chunking, trainees are invited to make word processing exercises based on predetermined meanings, for example with game show quiz mode [1, 13]. Through this game, students are expected to get an interesting, flexible learning experience, and challenging to find vocabulary in new and creative ways.

At the end of the training activity, it is hoped that the teacher can create interactive media for learning vocabulary independently which will then be compiled, so that it can be used as a learning medium together to improve the quality and interest of students in the German language learning process. In addition, this training activity also aims to disseminate the work of the community service of the Faculty of Letters, State University of Malang (UM), especially the Department of German Literature so that it can be known more widely by the public.

2 Implementation Method

The training activity for making interactive media for vocabulary learning for German teachers was conducted using the blended method, namely face-to-face and online meetings. The face-to-face training activity was held at SMA Negeri 2 Situbondo on July 10, 2021. In addition to involving UM German Literature Lecturers and partner coordinators, namely the head of the German Teacher Community for the Besuki ex-residency area, this training also involved alumni and students of the UM German Literature Department.

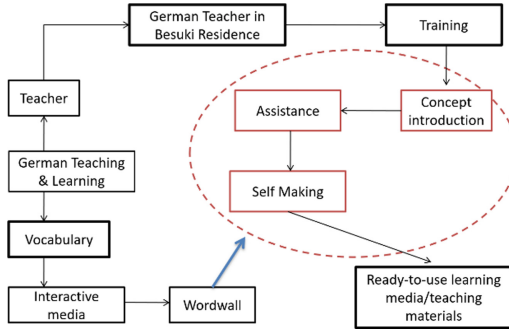


Fig. 1. Training Framework

The stages conducted are as follows: (1) socialization of the training program, (2) preparation of training evaluation materials and instruments, (3) introduction of interactive media for vocabulary learning, (4) aid in making media, (5) presentation of participants’ work training, and (6) evaluation of training activities. The evaluation of the activities was conducted by distributing questionnaires having 14 questions related to the implementation, usefulness, and sustainability of the training program that must be answered by the participants of the training activities. The answers to the questionnaire consist of two types, namely closed and open answers. Closed answers themselves are presented in 2 forms, namely a Likert scale of 1–5 and Yes/No answers. The meaning of the numbers 1–5 on the Likert scale shows a tiered answer choice from “Not very interesting/Not useful/Difficult to understand” to the choices “Very good/Remarkably interesting/Extremely useful/Quite easy to understand.

The data from respondents who have filled out the questionnaire were coded according to the order in which they were entered. For example, P1 means that the data was obtained from participant response number 1. This code was then used by the author in describing the findings. Questionnaire data in the form of numbers and words, which were obtained via google form, were then analysed descriptively.

3 Findings and Discussion

Wordwall interactive media creation training for German language teachers in the ex-residence of Besuki was conducted with instructions from the following framework (Fig. 1):

3.1 Online Phase

Due to the outbreak of the COVID-19 pandemic, training activities that were originally going to be held face-to-face have changed to an online mode using the Zoom-Meeting platform. At this first meeting, the focus of the activity was the introduction of the Wordwall interactive media application for vocabulary learning. Based on the preliminary questions given by the author at the beginning of the delivery of the material, the Wordwall media was not yet known by all participants. Most of them said that they



Fig. 2. Brainstorming about the media that has been used by the teacher

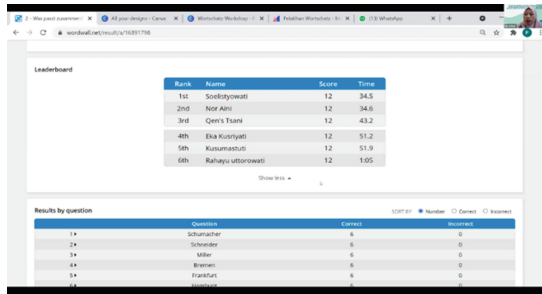
used the Google classroom application to teach vocabulary to their students. Some of the other participants mentioned Quizizz, Kahoot, and Schubert Wortschatz applications (see Fig. 2). This answer shows the lack of use of information technology-based media in the learning conducted by these teachers even in this disruptive era. When asked further about the reasons, the teachers mentioned a range of factors that have a considerable influence on learning, especially on learning that is conducted online. The problem of the availability of the internet network is still a major problem for teachers and students, not only because of the inadequate quality of the network, but also the economic conditions of students that do not allow the availability of these facilities.

The next problem comes from the teacher's side. Most of the teachers said that not many learning applications were known and mastered to be applied in online classes. In addition, teachers also stated their limitations in operating internet-based electronic devices. The problem of students' laziness is also a problem that often arises in online mode learning, where students have low motivation to be actively involved in learning. This condition can be seen from the number of students who turned their camera off when virtual meetings are held, students who were late in submitting assignments, and even students who did not fulfil their obligations to send assignments. This situation becomes a dilemma for teachers considering that they must still be able to serve students well and supply assessments for students.

After going through brainstorming, participants were introduced to various forms of quizzes on the Wordwall application through the link provided. The first quiz is given using a match up game model. In this game, participants must match between sayings about greeting (*Begrüßung*) with matching pictures.

In addition to the match up game model, participants were also introduced to another game model, namely group sort which requires participants to group vocabulary according to their respective categories. The categories given during the training process are self-introduction vocabulary such as family name, origin, hobby, and state.

Furthermore, participants were invited to get to know the features provided by Wordwall. The first thing that participants must know is how to register on the application so that they can continue to the stage of making questions. After registration or sign up, participants were introduced to various quiz templates. There are distinctive templates that have been supplied for free to users, but there are also new ones that can only be used by users who have premium accounts, meaning that there must be a certain amount



The screenshot shows a web browser window displaying a Wordwall leaderboard. The main table lists the top 6 students with their ranks, names, scores, and completion times. Below it, a 'Results by question' table shows scores for five different questions.

Rank	Nama	Score	Time
1st	Sodikinyawati	12	34.5
2nd	Noor Aini	12	34.6
3rd	Qen's Tsani	12	43.2
4th	Eka Kusdiyati	12	51.2
5th	Kusumastuti	12	51.9
6th	Rahayu ullohawati	12	1:05

Results by question	Question	Correct	Wrong
1*	Schumacher	6	0
2*	Schumacher	6	0
3*	Miler	6	0
4*	Bremen	6	0
5*	Frankfurt	6	0

Fig. 3. Leaderboard: summary of students' grades

of money paid according to the available package options. In this training, participants create quizzes using free accounts.

The first template introduced to the trainees is the Quiz model. This model is the simplest one and the practice questions are presented in the form of multiple choice. In this step, participants were invited to make questions with the theme of school or Schule. In making questions, participants were given instructions to add images either through uploading data or using images provided by the Wordwall system. This step continues until the trainee can generate a link that can be shared with his students or fellow teachers.

The interesting thing according to participants from this Wordwall application is its interactive presentation with various templates that are contemporary and proper to the age of the learner. The appearance, which is more like a game, is felt to be increasingly able to attract students' interest in learning because they do not have to be separated from the cell phones that they use every day. Another advantage of Wordwall is the possibility for teachers to edit a question that has been made into another template. This facility is particularly useful for teachers who teach not only one class for the same level. For example, for Class X IPA, a teacher makes questions with the theme of numbers using the Maze Chase template, then when the teacher teaches in Class X IPS, he just changes the game template into a game show quiz. Of course, this supplies an advantage in terms of saving time in making questions.

Although this application can be run attractively for online learning, it is also possible for offline learning. When students meet problems related to poor internet networks, teachers can still supply printed exercises of diverse types of games that have been made. Unfortunately, this facility is limited only to certain templates that can be accessed by users without paying. In addition, this Wordwall application also provides a summary of grades in the form of a leader board that can be used by teachers as learning evaluation material (see Fig. 3).

The online meeting ended with the assignment of tasks to the trainees as a form of independent project. The trainees are asked to make at least one type of German vocabulary exercise with a certain theme and are needed to share the link of their work with other participants using teacher mode so that it can be accessed by fellow teachers.



Fig. 4. Intensive assistance by the implementation team

3.2 Offline Phase

In this phase, it is planned that the trainees present the results of their independent work as instructed in the earlier phase. However, participants were not ready with their respective presentations on the grounds that they did not fully understand the material and were constrained by time. Therefore, the implementing team repeated the material presented about the preparation of interactive German language learning media using the Wordwall application. The implementing team supplied intensive assistance to the participants until they were finally able to produce the desired media as shown in Fig. 4.

3.3 Evaluation Results and Discussion

After successfully making the desired media, participants presented their respective work. The meeting on that day ended by distributing a questionnaire evaluating training activities via google form. There were ten German teachers from the Besuki region who attended the offline-phase and at the same time filled out the questionnaire. The following is a discussion of the findings gained from the questionnaire.

Although this activity has been socialized by the head of the German Teacher Community in this area through the WhatsApp group long before the activity, there are still participants who feel that they have not received adequate information about this activity. Two participants answered that the information was lacking, and one participant even chose the answer that they knew extraordinarily little about the plan for this training activity. Findings like this are a reflection for the activity implementation team and partners that it is important to supply repeated information to prospective participants so that they do not forget and feel that they are not well informed.

The results achieved in the training activity on making interactive learning media for German language teachers in the ex-residence area of Besuki can be seen from the changes and improvements in the ability of German language teachers in making vocabulary exercises with the Wordwall application. Based on the data obtained, 90% of the training participants thought that the material presented in the training was remarkably interesting. This is in line with the training participants' answers to questions about the skills of participants to produce ICT-based vocabulary learning media. It is known that the skills of participants were improved. At the beginning of the training activity, only

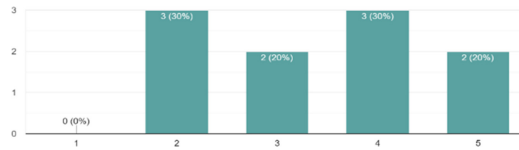


Fig. 5. Skills of participants in producing media for ICT-based vocabulary learning before joining the training

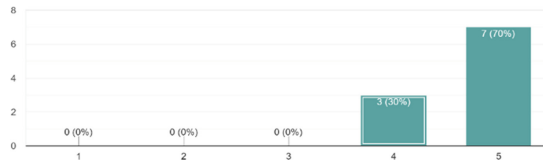


Fig. 6. Participants' skills in producing media for ICT-based vocabulary learning after attending the training

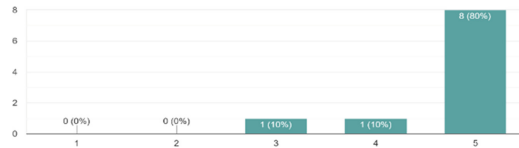


Fig. 7. Material novelty

20% of participants admitted that they were very skilled in making media (Fig. 5) and after attending the training, this number rose to 70% (Fig. 6).

The above interest is also inseparable from the content of the material presented in this training. As many as 80% of the teachers who took part in this training thought that the material they learned at that time was something new that they had never met before (see Fig. 7). In open-answer questions, P10 participants explained that the new thing included the Wordwall application as an ICT-based media that they were just getting to know, which could be used as an alternative to interesting and varied learning applications. Another explanation by P4 emphasized that with this media, it was easier for participants to make various forms of vocabulary exercises with just one application. With the media in the form of games, P3 and P9 believe that students will not experience boredom in learning German. This is because foreign language learning with a digital game-based approach is believed to be particularly useful in increasing students' motivation to study longer because they see an attractive display [14].

From the various data findings above, participants have indirectly received help from this training activity. The participants' answers in the questionnaire emphasized the fact that this training was greatly beneficial for the daily learning process carried out with their students (revealed by 70% of the participants) so without hesitation, they stated that they were ready to apply the training materials to their teaching and learning activities.

At the end of the section, all participants expressed their interest in taking part in further training. They reasoned that with the training, these teachers could not only update their knowledge and insights related to learning media, but also in line with their desire to be able to transfer learning materials better and more interestingly to their students. Some participants (P2, P3, and P5) still wanted material about making interactive learning media, while other participants hoped that there would be training with the theme of German language learning strategies that were easy and effective, and up to date. The other two participants (P8 and P9) specifically wanted training that specifically discussed German writing skills (*Schreibfertigkeit*) and knowledge of the German country and culture (*Landeskunde*).

Regarding the last topic desired by the participants, however, language learning will not be separated from cultural learning. From this desire, teachers are aware of the importance of intercultural understanding in the realm of foreign language learning [15]. If the teacher has adequate knowledge and experience about the culture of the community using the language being taught, then he or she will be better prepared to equip students to have better communication competencies [16].

4 Conclusion

Based on a series of discussions on training activities for creating Wordwall interactive media for vocabulary learning for German language teachers in the ex-residence area of Besuki, it can be concluded that training on creating digital interactive learning media using the Wordwall application is truly relevant for German language teachers to improve their quality and the quality of language teaching and learning in the area; So that they can create interesting and effective interactive learning media for students.

Material delivery was conducted in conjunction with intensive mentoring of individual participants to create German vocabulary practice questions using Wordwall digital media until participants succeeded in creating their work. The result of the training achieved was a significant increase in the skills of the trainees towards the creation of interactive media Wordwall for learning German vocabulary. At the end of the training, participants have been able to produce products in the form of vocabulary learning media using the Wordwall application.

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