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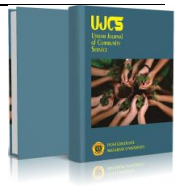

Digital Technology Training in Developing Teaching Modules Based on Sumbawa Local Wisdom

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Abstract: The implementation of the Independent Curriculum in Indonesia encourages educators to be more creative and innovative in preparing teaching modules. Especially in areas with a wealth of local wisdom such as the Sumbawa highlands, the integration of local values into the learning process is very important to create meaningful and holistic learning. However, the lack of teacher skills in designing teaching modules that are interesting, interactive and appropriate to student characteristics is a problem that needs to be resolved. This service activity aims to provide training to teachers in using digital technology to develop teaching modules based on local wisdom. The method used in this service is carried out in a structured manner with training and mentoring activities. The procedural stages of the activities are carried out in several stages, namely preparation, implementation and evaluation. Participants in this training consisted of 18 teachers at SMPN 4 SATAP Moyo Hulu. The results of this service activity showed that the pretest and posttest results given to teachers went from 61% to 85%, there was an increase in teacher knowledge by 24%. Participants arrived on time and participated in the activities 85% fully. The results of the task of preparing teaching modules based on local wisdom collected were 85%. From the community service activities that have been carried out, it can be concluded that the activities have been effective, seen from the participants' increased knowledge in preparing local wisdom-based teaching modules in the independent curriculum and their skills in designing local wisdom-based teaching modules have increased.

Keywords: Digital technology; Teaching module; Sumbawa local wisdom.

Introduction

Sumbawa has a rich culture and unique local wisdom, such as knowledge about medicinal plants, traditional agricultural techniques, or folklore. However, often this knowledge is not well documented and is difficult for the younger generation to access. The Merdeka Curriculum provides ample space for teachers to develop teaching modules that are relevant to the local context. By utilizing digital technology, teachers can easily access, process and present information about local wisdom in an interesting and interactive form.

The implementation of the Independent Curriculum in Indonesia encourages educators to be more creative and innovative in preparing teaching tools, namely teaching modules. Freedom to Learn is a concept in the world of education that provides freedom and independence to students in determining the course of the learning process (Pertiwi et al., 2022).

The Teaching Module has a main role for teachers in designing learning. According to Munawar (2022), a teaching module is a learning device or design based on a curriculum that is applied in accordance with the learning objectives to be achieved. In designing teaching modules teachers must have the ability to think to innovate in their preparation. Therefore, teachers must have pedagogical competencies that need to be developed, such as teaching techniques in the classroom so that they are more effective, efficient, and do not deviate from discussions of planned objectives.

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In areas with a wealth of local wisdom such as the Sumbawa highlands, the integration of local values into the learning process is very important. Indonesian society should return to their identity through reinterpreting and reconstructing noble values by uncovering substantive local wisdom which is very close to life (Ramdhayani & Noviati, 2020).

Learning based on local wisdom can create holistic and meaningful learning. The implementation of the Independent Curriculum in Indonesia opens up great opportunities for teachers to design learning that is more relevant and meaningful for students. However, in the highland areas of Sumbawa, teachers often face challenges in accessing quality learning resources and developing innovative teaching modules. In fact, this area has a wealth of local wisdom which has great potential to be used as a learning resource. Teachers can raise the potential or problems that exist around students so as to create a contextual learning climate. Learning resources that are easy to reach and around students can be a potential for preserving local wisdom while making maximum use of natural resource potential. This learning can motivate students to study harder because the knowledge gained can be applied immediately.

On the other hand, the development of digital technology offers various conveniences to create more interesting and interactive learning. Saebani (2021) explains that educational technology is an important tool for increasing the efficiency of the teaching and learning process, by utilizing digital technology in creating teaching materials. The implementation of digital technology in learning allows educators to create teaching materials that are more dynamic, interactive and relevant.

Several literature studies found that the implementation of the independent curriculum in junior high schools is still not optimal, especially in preparing teaching modules based on local wisdom. Research by Nurul Azminah et al., (2023) shows that educational institutions in Indonesia are faced with the challenge of developing teaching modules that are in accordance with the principles of the Independent Curriculum and enriching learning materials with local wisdom (Nurul Azminah et al., 2023).

The results of the study above are supported by the results of initial observations at SMPN 4 SATAP Moyo Hulu, which is one of the schools in the highland area of Sumbawa. Problems were found, including 1) Knowledge of teacher technicians in compiling teaching modules based on local wisdom by utilizing digital technology in the form of applications and the latest features are very lacking. The program launched by the Ministry of Education and Culture regarding teacher mastery in compiling teaching modules has not yet optimally targeted teachers in highland areas; 2) The teacher has never prepared an independent curriculum teaching module based on local wisdom. Preliminary data shows that many teachers lack the skills to design teaching modules that are interesting, interactive and appropriate to student characteristics. Teachers often have difficulty identifying and integrating local wisdom into learning materials effectively; 3) Teachers do not really understand the techniques for compiling and developing teaching modules for the independent learning curriculum.

Based on these conditions, the research team felt it was very important to improve teachers' professional abilities in preparing teaching modules for teachers through training so that teachers gain direct experience in using teaching modules based on local wisdom properly and correctly so that effective learning occurs. This service aims to provide training to teachers in creating teaching modules based on local wisdom and utilizing digital technology in compiling teaching modules to make them more interesting through the Canva application.

Based on the phenomenon in partner schools, the solution offered to provide understanding to teachers at SMPN 4 SATAP Moyo Hulu is that it is very important to carry out training in preparing teaching modules based on local wisdom using digital technology for SMPN 4 SATAP teachers in Sempe village. This activity is very necessary for teachers to have the ability and expertise to master digital technology as a provision for compiling and developing independent curriculum teaching modules based on local wisdom. With this training, it is hoped that teachers will have competence in the field of technology and their pedagogical competence will increase. Good learning planning will certainly produce a good learning process too. Moreover, the learning process is based on life and the surrounding environment, of course students will be motivated to learn. Student motivation needs to be increased at SMPN 4 SATAP Moyo Hulu Sempe Village because most of the students are children of farmers whose education level is still relatively low. The service team tries to maximize the training process in the hope that partner problems are resolved well and can increase quality human resources. In the activities carried out, partners play an active role during the activities because they are the key to success as expected. Teachers prepare themselves, especially regarding the material of the teaching materials that will be developed so that they both look for compatibility in integrating local wisdom appropriately, in addition to partner participation by providing each other with internet access.

The output resulting from this training and mentoring activity is in the form of local wisdom-based

teaching modules designed using the Canva application which can be copyrighted by teachers or partners.

Method

This community service activity was carried out by FKIP Lecturers at Samawa University on 26-27 August 2024. It took place at a partner school, namely at SMPN 4 SATAP Moyo Hulu. Community service activities were attended by 18 teachers. The method for implementing PKM activities is carried out in a structured manner with training and mentoring activities.

The implementation of this activity is carried out in several stages, namely preparation, implementation and evaluation. The flow of implementation of community service activities can be seen in the flow image below:

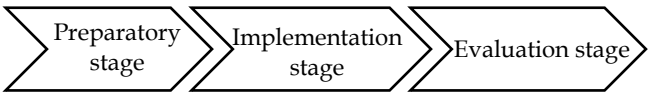

Figure 1. Flow of Community Service

Preparatory stage

This community service activity is carried out to overcome partner problems. This activity begins with a preparation stage which is carried out in several stages. The first stage, the team conducted a survey of partner locations. Then carry out observations and interviews related to partner problems. From the partner's problems it was found that. lack of skills in designing teaching modules that are interesting, interactive, and appropriate to student characteristics. Teachers often have difficulty identifying and integrating local wisdom into learning materials effectively and teachers lack skills in using digital technology in compiling teaching modules. The service team provides solutions related to partner problems by holding digital technology training activities in developing local wisdom-based teaching modules, then determining the appropriate schedule for implementing activities and evaluation activities. At this stage the PKM team carries out outreach with partners regarding the information and activities that will be implemented. Coordinate with partners regarding what data is needed for activities, for example the number of teachers who will take part in this PKM activity is 21 teachers. This initial stage aims to strengthen partners' commitment to PKM activities which will be implemented through FGD.

Implementation stage

This implementation stage will begin with the delivery of material. There are 2 types of material that will be delivered according to the problems experienced by partners. The first material is related to the preparation of all components of the teaching module content and integrating local wisdom in the teaching module, then continued with training and assistance in preparing the module. After all module components are fulfilled, the second material is then given regarding the application of the Canva application and training and assistance is provided in designing teaching modules using the Canva application.

Evaluation Stage

The evaluation stage aims to measure the level of success of the PKM activities implemented. Evaluation is carried out at each stage of activity implementation to see the level of success and become a consideration for the next activity. A comprehensive evaluation is carried out after the PKM program has been implemented. A comprehensive evaluation to see the level of partner participation in each activity can be seen from the participant attendance list. To measure the level of participants' understanding of the development of local wisdom-based teaching modules, an instrument in the form of a test (pre-test and post-test) was used. Meanwhile, to determine the level of skill of each teacher in developing independent curriculum teaching modules based on local wisdom, the direct observation method was used and the teaching modules that had been produced were used.

Result and Discussion

This service activity aims to provide training to teachers in using digital technology to develop teaching modules based on local wisdom. The teaching modules are designed using the Canva application to make the appearance more attractive.

This service activity begins with observations and interviews with partners to analyze needs, arrange permits, and determine the time and location of service. The results obtained from this service preparation stage are mapping of partner problems, implementation strategies, implementation time, and materials to be trained. The material presented includes providing understanding and training on digital technology related to preparing teaching modules based on local wisdom.

In the implementation stage, activities are carried out in partner schools. The activity carried out is the use of digital technology in compiling teaching modules based on local wisdom. In the initial activity, training was carried out by two resource persons, namely. Eryuni Ramdhayani, M.Pd who explained regarding the preparation of teaching modules based on local wisdom, how to identify local wisdom and integrate local wisdom values in teaching modules as well as training and mentoring teachers in compiling teaching modules.

Teachers are very interested in local wisdom being integrated into learning content because it will be more meaningful and contextual for students. Supported by (Khotimah et al., 2021) that the inclusion of local excellence content in learning, which is around students, will motivate students in learning. Efforts to connect learning activities with facts or events in the real world can create a very meaningful learning process. So it is hoped that students will be able to participate in learning activities with enthusiasm and their own will. Meaningful learning occurs when students try to connect new phenomena with the knowledge they have, and link it to lessons to give rise to new concepts (Hafidzhoh, 2023).

In this PKM activity, in compiling local wisdom-based teaching modules, teachers are guided to analyze the relationship between local wisdom values in each subject. This is to make it easier to integrate local wisdom in the teaching modules that will be developed by teachers.

Teaching modules developed in the independent curriculum should have several distinctive elements, namely phases, learning outcomes, character integration through the dimensions of the Pancasila student profile, diagnostic assessments before learning, differentiated learning, as well as test and non-test assessments (Amaliawati, 2022). According to Dolasinski and Reynolds (2020), there are three main parts of the teaching module that must be in accordance with the learning implementation instructions, namely learning objectives, learning activities and learning assessment. Teachers are given the freedom to develop components in the ses teaching module according to the environmental context and students' learning needs (Febyana et al, 2024).

Next, the second speaker, Sri Nurul Walidain, M. Pd, provided training related to the use of Canva in preparing teaching modules based on local wisdom. A series of activities to deliver material in advance by sources can be seen in Figures 2 and 3.

Figure 2. Delivery of material by the first resource person

Figure 3. Delivery of material by the second resource person

This service activity went very well, this can be seen from the enthusiasm of the participants in carrying out direct exercises in compiling teaching modules based on local wisdom and the use of Canva in compiling teaching modules. The series of training activities can be seen in Figure 4.

Figure 4. Training and mentoring for partners

The effectiveness of implementing this service activity can be seen from the process during the activity and through assignments. This evaluation activity is carried out through giving pretests and posttests, observations and the results of creating teaching modules. The evaluation results show that the results of observations during this training activity show that the activity has run effectively and according to plan. This is because the participants are very focused on the material presented by the presenter. The achievements of this service activity can be seen in Table 1.

Table 1. Achievements of PKM Activities

Achievement indicators	Achievements
Increased test scores	Increased pretest score by 24% from 61% to 85%
Level of participation of teachers taking part in training	Participants attended 85% of the 21 teachers and 18 teachers who participated
Number of local wisdom-based teaching modules developed	preparation of teaching modules based on local wisdom collected around 85%

Based on this table, the results of the pretest and posttest given to teachers were from 61% to 85%, there was an increase in teacher knowledge by 24%. Participants arrived on time and participated in the activities 85% fully. The collected results of the task of preparing teaching modules based on local wisdom, around 85% of participants' knowledge has increased in preparing teaching modules based on local wisdom in the Merdeka curriculum and skills in designing teaching modules based on local wisdom have increased. However, there are still some teachers who have difficulty identifying local wisdom that is suitable for integration into teaching modules and using Canva in designing teaching modules. Apart from that, teachers' responses to training activities show that this activity is useful for teachers as preparation for implementing the Merdeka curriculum in the new school year. This mentoring activity also provides teachers with direct experience in adapting teaching modules to suit the needs of each education unit.

The implementation of this training activity has gone according to plan. This can be seen from the presence of resource persons reaching 100%. Apart from that, participants arrived on time and participated in the activities in full. During the activity, participants showed their seriousness in understanding the material provided and were enthusiastic about completing assignments. This was motivated by the participants' desire to understand and be able to design teaching modules based on local wisdom in an effort to implement the independent curriculum. Teachers are expected to not only master teaching materials, but also be able to design learning that can stimulate students to develop their knowledge optimally (Nisa et al., 2023).

Based on the results of training in preparing independent curriculum teaching modules based on local wisdom using digital technology at SMP Negeri 4 Satap Moyo Hulu, it can be concluded that the teachers were very enthusiastic and active in participating in the activities, this can be seen from the participants' enthusiasm in asking questions about material they did not understand. They were very happy with this activity and hoped that there would be similar activities carried out by FKIP. The use of digital technology in the world of education is a bold step that takes us to a new world full of potential (Putra & Suci, 2023). Implementing learning with the concept of independent learning, teachers as educators must have reliable or quality readiness and abilities, have supporting facilities and infrastructure, follow current technological developments and advances (Muhajir et al, 2021). The expected learning experience is certainly reflected in the learning planning, namely in the teaching modules prepared by the teacher. The role of the teacher when preparing learning tools is very important, in this case teachers are trained to have creativity in preparing teaching modules so that later learning can run effectively and efficiently (Rantina et al, 2023). Teachers will have difficulty upgrading their teaching effectiveness if they are not paired with complete teaching modules (Maulida, 2020).

From this service activity, it is hoped that it will be easier for teachers to carry out learning because teachers understand more about the preparation of teaching modules and students' understanding of concepts will be easier because teachers prepare teaching modules based on local wisdom that are close to students' daily lives. According to Dewi & Sunarsih (2023) that in an independent curriculum, teachers have the freedom to develop teaching modules according to the context, characteristics and needs of students.

This activity cannot be separated from the factors that influence the process that occurs, both supporting and inhibiting factors. The supporting factors during the activity were the readiness and motivation of the partners in carrying out the activities that were followed from start to finish, apart from that the teachers were ready with their respective laptops. Meanwhile, the inhibiting factor is that internet access is still not strong enough, causing long time usage.

Conclusion

Community service activities related to digital technology in compiling local wisdom-based teaching modules have gone according to plan. This can be seen from the presence of resource persons reaching 100%. The results of the teacher's pretest and posttest were from 61% to 85%, there was an increase in teacher knowledge by 24%. The collected results of the task of preparing teaching modules based on local wisdom, around 85% of participants' knowledge has increased in preparing teaching modules based on local wisdom in the independent curriculum and skills in designing teaching modules based on local wisdom have increased. Participants arrived on time and participated in the activities 85% fully. This shows the seriousness of the participants to understand the material. From these results it can be concluded that the community service activities that have been carried out are effective. The supporting factors during the activity were the readiness and motivation of the partners in carrying out the activities that were followed from start to finish, apart from that the teachers were ready with their respective laptops. Meanwhile, the inhibiting factor is that internet access is still not strong enough, causing long time usage.

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