



A Digital Media-Based Learning Transformation Strategy in an Effort to Implement Differentiated Learning at the PGRI Kamal Madura Special School

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ABSTRACT

This community service that aims to improve teachers' ability to use technology in Special School PGRI Kamal. In the initial observation, the results were obtained that there were various challenges faced by the teacher council at Special School PGRI Kamal in the implementation of learning for students with special needs such as the deaf and speech-impaired. The limited number of teachers which causes an additional workload for teachers. Community service activities are needed by providing workshops. The workshop activities held included the use of audio, visual, and audiovisual media which were carried out offline. The workshop held in this service program is expected to improve teachers' skills in the use of digital media platforms to support learning activities

INTRODUCTION

Education has a very important role in shaping a competent and competitive generation (Darman, 2017; Robiatul Adawiyah, Yunus Setyo Wibowo, & Yuyun Kartika, 2017). The government continues to improve the quality of education from the elementary level to higher education. At the elementary to secondary school levels, the government issues a curriculum known as the Independent Curriculum which was developed to give freedom to students in learning (Widiastuti, Rifki, & Arief, 2023). One of the activities of the independent curriculum project is to carry out a project to strengthen the profile of Pancasila students, One of the activities that is a form of implementing P5 activities is the implementation of differentiated learning, where there is a process of adjustment to the interests of learning preferences, as well as the readiness of students to learn, so that good learning results are obtained (Yuntawati & Suastra, 2023). Differentiated learning strategies are proven to increase students' interest in learning (Suwandi et al., 2023).

Improving the quality of learning and implementing the independent curriculum is not limited to public schools but also in Special Schools (SLB) So that students with special needs are also entitled to learning in accordance with the development of the curriculum that is being implemented. In this community service activity, the goal is to optimize the implementation of the independent curriculum at SLB. SLB PGRI Kamal Madura become the object of Community Service. This school is a private SLB school that houses various kinds of children with special needs in the Kamal area and its surroundings.

People with disabilities are called a vulnerable group because they still often experience discrimination and social injustice in society. So that the government intensifies inclusive education for people with disabilities so that they can be empowered and coexist with the community. There are three types of special education in Indonesia, namely segregation education, integrated pedagogy, and inclusive education (Prakoso & Oktora, 2023). According to education, segregation is an education system for children with special needs that is separate from the education system for ordinary children and is realized through the implementation of special schools (SLB) (Effendi, 2016).

SLB PGRI Kamal is an extraordinary school for elementary, junior high and high school students. Students with disabilities consist of deaf, blind and visually impaired. The data on junior high school and high school students of SLB PGRI Kamal that have been obtained by the PKM Team is as follows:

Table 1. Students in SLB PGRI Kamal Bangkalan

| No | Name | Class | Gender |
|----|-------------------------|-------|--------|
| 1 | Latifatul Maulidia | VII | Female |
| 2 | Kurnia Rahmani | VII | Female |
| 3 | Vicko Sandy HidaPrakoso | VIII | Male |
| 4 | Sahlatul Mukarromah | VIII | Female |
| 5 | Achmad Ardiansyah | VIII | Male |
| 6 | Moh. Rifqi Ramadhani | VIII | Male |
| 7 | Amanda Nur Fajrina | IX | Female |
| 8 | Aprizal Bagas Saputra | IX | Male |

| | | | |
|----|---------------------------|----|--------|
| 9 | Luluk Rohmati | X | Female |
| 10 | Mohammad Usai | X | Male |
| 11 | R. Mohammad ArizalSucipto | X | Male |
| 12 | Dwifki Ilhami | X | Male |
| 13 | Rois Adi Pratama | XI | Male |
| 14 | Vicky Hadi Santoso | XI | Male |



Figure 1. Learning Process in SLB PGRI Kamal









| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  NIP : - Yasmin Firdausi KEPALA SEKOLAH Pendidikan : S1 |  NIP : - Fitriyatul Ratnasari GURU Pendidikan : Sarjana Pendidikan |  NIP : - Dewi Us Juliwanti GURU Pendidikan : Sarjana Pendidikan |  NIP : - Nur Amalatus Sholeha GURU Pendidikan : Sarjana Pendidikan |
|  NIP : - Fatimatus Zahroh GURU Pendidikan : S1 |  NIP : - Fety Tiara Kusmana GURU Pendidikan : S1 |  NIP : - Eka Prasetya GURU Pendidikan : S1 |  NIP : - Shelly Kusuma Dewi GURU Pendidikan : Sarjana Ilmu Komunikasi |

Figure 2. Teacher Profile

Based on the results of initial observations, it was found that the diversity of SLB PGRI Kamal students with the distribution of students with the blind, deaf and visually impaired was found. The number of teaching teachers is 8 teachers who also serve as school officials and school administration, teachers are required to be able to teach individually to each student who has different needs. It is important to develop differentiated learning to facilitate

their learning activities. Through digital media, it is hoped that it can maximize differentiated learning.

In the phenomenon that occurred at SLB PGRI Kamal Madura, several problems can be found, including :

1. The diversity of students with different special needs makes students need different treatment between students.
2. The limited number of teachers with conventional learning methods has not utilized learning technology.

This problem was raised as an effort to contribute the researcher to the surrounding community, namely SLB PGRI Kamal teachers which will later have an impact on the quality of student learning as an outcome of this PKM program.

IMPLEMENTATION AND METHODS

Implementation of Digital Learning Media Development Skills Training for SLB Teachers in an Effort to Implement Differentiated Learning SLB PGRI Kamal Madura through several stages as follows :

Table 2. Details of the Implementation Method of the Activity

| No | Activities | Description | Goal(s) |
|----|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Coordination with Partners | The meeting between the PKM team and partners discussed the problems faced by partners, solutions from the PKM team, training needs and Training Implementation Schedules. | <ol style="list-style-type: none"> 1. Implementation of coordination activities and interviews with partners 2. Training implementation agreement 3. Develop a schedule of training activity plans 4. Trainees' agreement |
| 2 | Preparation of Training Modules | Meeting of the PKM team and experts in their fields to prepare modules/ <i>handouts</i> according to the needs of partners | <ol style="list-style-type: none"> 1. Coordination went well 2. Arrangement of modules/<i>handouts</i> in the form of Powerpoints for each material |
| 3 | Training | <p>A. Opening</p> <p>B. Introduction to Digital Media Learning</p> | <p>Activities are carried out according to the planned schedule</p> <ol style="list-style-type: none"> 1. The presence of trainees (teachers) during activities 2. There was an interactive discussion between participants and resource persons during the activity 3. Participants |

| | | | |
|---|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | understand the types of digital learning media |
| | C. Training on the use of digital platforms | | <ol style="list-style-type: none"> 1. Attendance of training participants (teachers) during the implementation of activities 2. There was an interactive discussion between participants and resource persons during the activity 3. Participants are able to understand and use digital platforms |
| | D. Compilation techniques and development of digital media in student learning | | <ol style="list-style-type: none"> 1. Attendance of training participants (teachers) during the implementation of activities 2. There was an interactive discussion between participants and resource persons during the activity. 3. Participants are able to determine the right digital media that can be applied in learning |
| | E. Discussion and Closing | | <ol style="list-style-type: none"> 1. There is an interactive discussion about the event 2. The results of the recapitulation of attendance data and data on the effectiveness of training events |
| 4 | Assistance and Review of Results | Assistance was carried out by the PKM Team related to improving the results of the participants' trials | <ol style="list-style-type: none"> 1. There are interactive discussion activities between participants and companions 2. Participants are able to carry out work performance tasks |
| 5 | Evaluation and Reflection | Meeting with partner representatives | There are inputs and suggestions from participants regarding the implementation of the event for future |

The training object is aimed at teachers of the PGRI Kamal Madura Special School, which is around 10 teacher participants. The training will be held in June 2024 with the participation of 5 resource persons from within PKM members and outside PKM members. The duration of the training is 1 day offline and the mentoring after that online and online is carried out for approximately 1 month to be able to produce products that have been trained and at the same time can be used for learning activities.

RESULT AND DISCUSSION

The respondents in this study are teachers in SLB Kamal Bangkalan, With a total of 8 teachers who are respondents. Respondents were then given a questionnaire with a likert scale of 1-5 with a value of 1 is for very inappropriate, a value of 2 is for inappropriate, a value of 3 is for neutral, a value of 4 is appropriate, and a value of 5 is for very appropriate

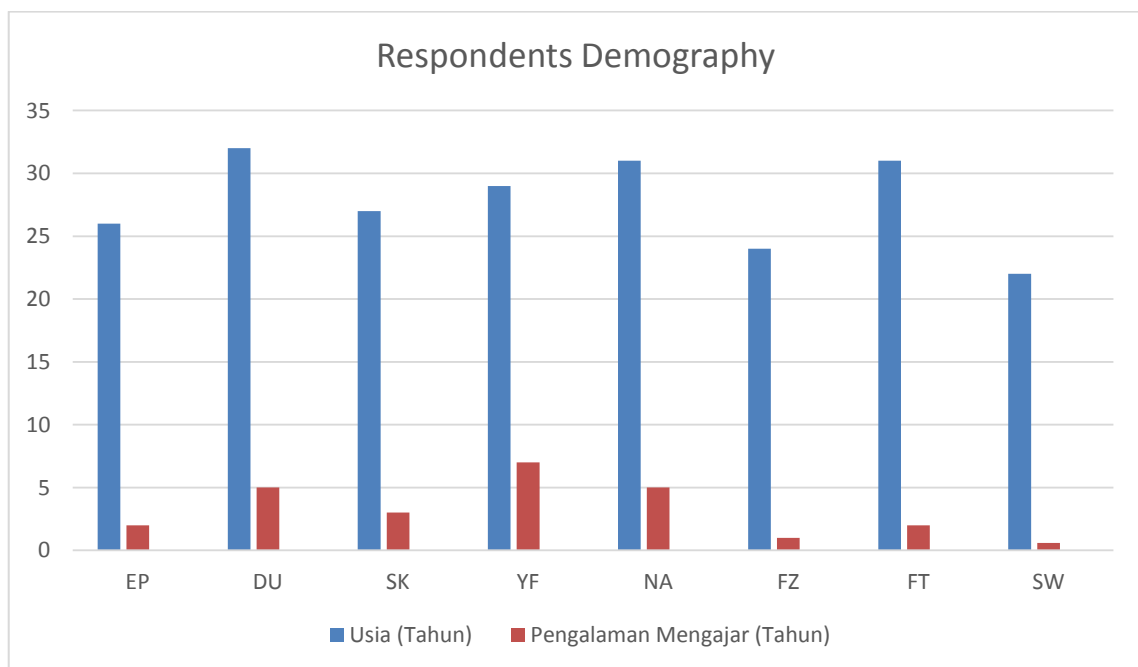


Figure 3. Respondents Demography

In figure 3 related to the demographics of the respondents, there is data on teaching experience in teachers at SLB Kamal Bangkalan. In addition, there is demographic data of respondents related to the age of teachers at SLB Kamal Bangkalan. In the demographics in figure 3, it can be seen that the oldest age is 32 years old, with 5 years of teaching experience which DU has. Meanwhile, the longest teaching experience is in respondents with the initials YF who have 7 years of teaching experience and with the age of 29 years. The youngest age is 22 years old that FZ has, with 7 months of teaching experience. This is also the shortest teaching experience when compared to other respondents (Han, 2025; Rowe et al., 2024). The average demographic age of respondents was 27.75 years. Meanwhile, the average teaching experience is 3.2 years.

Table 4. Respondent Data Collection

| Aspects | Initials | EP | DU | SK | YF | NA | FZ | FT | SW |
|----------------------------------------------------------------------------|----------|----|----|----|----|----|----|----|----|
| Time Allocation | | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| Time Accuracy | | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 3 |
| Materials Presented | | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 4 |
| The material is easy to practice | | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 3 |
| The usefulness of training: increasing knowledge on digital learning media | | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| The usefulness of training: skills in making digital media | | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 |
| The urgency of training in the independent curriculum | | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 |
| Pre-activity knowledge | | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| Explanation from expertises | | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| Expertises Language Style | | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| Responsive Expertises | | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 |
| Motivational Words by Expertises | | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 |

The indicators in data collection consist of time allocation (Xu, Li, & Li, 2023), timeliness (Feng, Zhang, Yin, & Wang, 2025; Guo, Yang, Farizan, & Samsudin, 2024), materials presented (Abdala, 2024; Carrete-Marín, Domingo-Peñafiel, & Simó-Gil, 2024), The material is easy to practice, the usefulness of training: increasing knowledge on digital learning media, the usefulness of training: skills in making digital media (Almitani et al., 2022; Zellmer, Zimdars, Parker, & Safdar, 2015), The urgency of training in the independent curriculum (Bitrián, Buil, Catalán, & Merli, 2024), Pre-activity knowledge (Gomez Gomez, 2024; Hülshoff & Jucks, 2024), Explanation of the resource person, language style of the resource person, responsive resource person, and increasing motivation by the resource person (Tsai, Wu, & Chen, 2024; Wei, Saab, & Admiraal, 2023). The time allocation indicator has an average value of 3.5. This indicator has the highest value of 4, which is owned by respondents with the initials EP, SK, YF, and FT. While the lowest value in this indicator is 3, which is owned by respondents with the initials DU, NA, and FZ. In this first indicator, it measures that the allocation of time for implementation is appropriate and adequate so that in practice participants can apply the knowledge conveyed well by the speakers. However, if you look at the average score given, it is 3.5 out of a maximum score of 5. So that the allocation in the implementation of activities requires an increase in the next program.

In addition to the first indicator, there are indicators 3 and 5 which have an average value of 3.5 out of a maximum value of 5. The fifth indicator is related to the usefulness of activities in increasing participants' knowledge related to digital media. Meanwhile, in the third indicator, it is known that the third indicator is to discuss related to the direct benefits of the material presented to the participants. When referring to the average owned by the two indicators has the same value, which is 3.5 out of 5. So that this proves that the implementation

of the learning training program using digital media for teachers at SLB Kamal Bangkalan provides significant benefits. Both through direct benefits to participants, as well as indirect benefits by increasing participants' knowledge related to digital media.

The highest average score is found in the indicator of urgency of digital media training in its implementation in the independent curriculum. This proves that learning training materials based on digital media are indispensable for teachers at SLB Kamal Bangkalan in the Merdeka curriculum. This also proves that the use of digital media is indispensable in the implementation and smooth implementation of learning and teaching activities in the classroom (Huang, Lin, & Liu, 2024; Taylor, Sala, Kolak, Gerhardstein, & Lingwood, 2024; Tianyi, 2025). So that teachers are required to understand related to digital media and the implementation of this training runs in accordance with the current curriculum development (Fahmy, Bachtiar, Rahim, & Malik, 2015; Rachman, Putro, Rusandi, & Situmorang, 2024).

The lowest average value is owned by indicator number 9, with the points discussed in the indicator trying to reveal the pre-activity knowledge possessed by the respondents. In indicator number 9, it is known that the indicator has a value of 2,875. So that respondents do not have knowledge related to digital media that can be used during the learning process. When compared to the program usefulness indicator which is known to have an average value of 3.62 on the digital media skill indicator and 3.5 on the indicator of increasing digital media knowledge, it can be concluded that the implementation of the digital media-based learning training program has a significant impact and benefit on teachers at SLB Kamal Bangkalan.

In the first stage, coordination with partners was carried out, in this case coordination was carried out with SLB PGRI Kamal Bangkalan. Through this coordination, it can be seen that SLB PGRI Kamal Bangkalan has a number of problems in digital media-based learning. These problems include the diversity of students with different special needs. As well as the limited number of teachers and the limited number of teachers in conducting learning using digital media, this happens because most teachers master conventional teaching methods and are not based on digital media.

So the solution that can be offered is to provide learning training related to digital media. This is done with the aim of solving the problem of the diversity of students with special needs, with the threat in the form of training, it is hoped that teachers can provide varied learning to students with various special needs, for example, teachers can take advantage of audio, visual, and audio-visual based



Figure 4. SLB PGRI

This stage begins by providing socialization to the group's WhatsApp media by distributing activity pamphlets. The dissemination of pamphlets carried out on the group's WhatsApp media also aims to provide information openly and widely, so that students and guardians can know the activities that will take place. The activity pamphlet is presented in figure X. With the indicators of success in this first stage include

1. The implementation of coordination activities and interviews with partners, namely with the principal of the school from SLB PGRI Kamal Bangkalan, namely Mrs. Yasmin Firdausi, S.S.,Gr.
2. The agreement on the implementation of the training is on the date of 25th of June, 22nd of July, 24th of July 2024
3. The schedule of training activities in the form of *rundown* activities agreed on the implementation of training participants is as many as 8 people, namely teachers at Extraordinary Junior High School and Extraordinary High School PGRI Kamal Bangkalan.

The PKM team's footsteps were continued by preparing a training module which was then carried out with 3 meetings. At the first meeting, the material presented was the introduction of digital media learning, training on the use of digital platforms, compilation techniques and digital media development in student learning with an offline delivery scheme at SLB PGRI Kamal Bangkalan. At the second meeting, the material presented was assistance related to improving the results of the participant trial with the scheme of delivering material offline. At the third or last meeting, the material presented was the development of a digital-based learning media display with a delivery scheme

carried out online through zoom meetings. The documentation of coordination activities in the preparation of the training module is presented in figure 3 as follows.

In the second stage, the indicators of success have been achieved as a whole, which are as follows

1. Coordination went well
2. Arrangement of modules/handouts in the form of powerpoints for each material

The PKM Disability Team has carried out initial training with an offline scheme at SLB PGRI Kamal Bangkalan. The training at the first meeting was carried out on June 25, 2024. The training at the first meeting was attended by 8 teachers at SLB PGRI Kamal Bangkalan. At the first meeting, it consisted of 5 activities. Among them are the opening, introduction of digital learning media, training on the use of digital platforms, compilation techniques and development of digital media in student learning, and discussion activities. Documentation of training activities can be presented in figure 3 as follows learning media. So that in practice teachers can apply it simultaneously to students with varying needs.



Figure 5. First Meeting Documentation

After the opening activity, the PKM Disability team then presented the material. The presentation of the material was carried out by a team of experts. The material presented was the introduction of learning media, training in the use of digital platforms, and compilation techniques and the development of digital media in student learning.

Furthermore, after being given material on the introduction of learning media, the use of digital platforms, and compilation techniques and the development of digital media in student learning. Then the group was divided into 3 groups. Among them are the visually impaired, visually impaired, and deaf. The purpose of creating a group is because the trainees are teachers who handle students with disabilities who have limitations when planning their businesses individually. Then the next activity is that each group accompanied by a team of experts conducts discussions related to independent assignments and reflections that have been given by the previous expert team.



Figure 6. Independent Assignment Assistance

At the third meeting, presentations and presentations were made related to the assignments given at the second meeting which had been carried out in the period from June 25, 2024 to July 22, 2024. The third meeting was carried out with an online scheme through zoom meeting media on July 24, 2024. Documentation of activities at the third meeting is presented in figures 7 to 9 as follows.



Figure 7. Presentation of Group Assignment 1

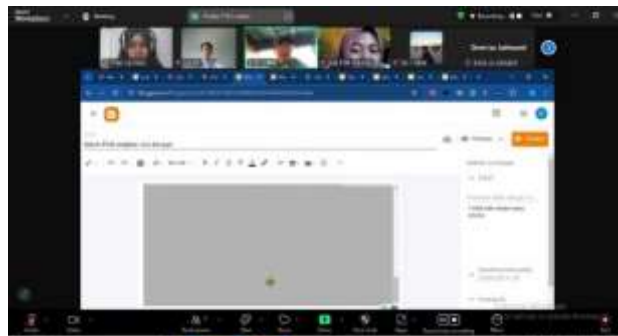


Figure 8. Presentation of Group Assignment 2

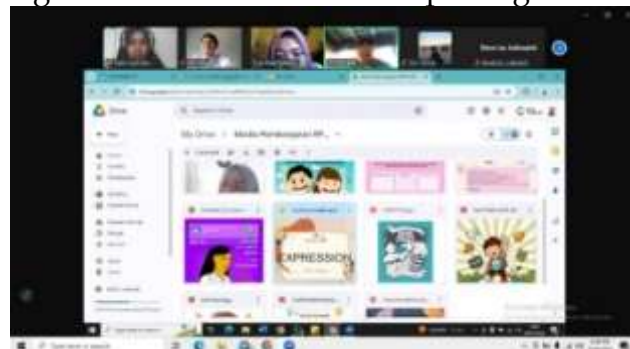


Figure 9. Presentation of Group Assignment 3

In this third stage, the indicators of success have been achieved as a whole, which are as follows

1. Activities carried out as scheduled
2. The attendance of training participants (SLB teachers) was 8 teachers so that all participants attended and the attendance percentage had reached (100%)
3. Interactive discussion activities have been carried out during the learning
4. Participants divided into 3 groups have presented assignments Participants understand the types of digital learning media, determine the right digital media that can be applied in learning, and understand and use digital platforms

After carrying out a series of activities, assistance activities were carried out in improving and the results of the participants' trials. The mentoring activity was carried out on July 24, 2024 through zoom meeting media and was carried out in conjunction with the assignment presentation activity at the third meeting. After the mentoring activities were carried out after the activity, an evaluation of the activity was carried out using the google form platform which was disseminated through the whatsapp group application platform. The results of the evaluation conducted through google form media are presented in table 4 related to the results of respondent data collection. Based on the results of the survey that has been carried out, some participants expect more frequent training intensity, so that the development of soft skills possessed by SLB teachers related to digital media can increase significantly. Meanwhile, the indicators of success in this fourth stage include

1. There are inputs and suggestions from participants regarding the implementation of the event for future improvements.

CONCLUSION AND RECOMMENDATION

This study shows that community service activities that focus on training the use of digital learning media at SLB PGRI Kamal Bangkalan have succeeded in having a positive impact. Although teachers are faced with challenges in dealing with students with various special needs, this training has succeeded in providing new insights and improving the competence of teachers at SLB Kamal Bangkalan in utilizing digital media for learning. The data shows that the average assessment of the training is at a satisfactory level, with a special emphasis on the urgency of digital media training in the implementation of the Independent Curriculum.

Although at the beginning of the training participants had difficulties in understanding digital media in its implementation in the learning and teaching process, this shows the need for further training. So overall, this activity succeeded in improving teachers' abilities and providing significant benefits for the learning process at SLB Kamal Bangkalan. The final evaluation also indicated that higher training intensity could reinforce the results achieved. Thus, the advice given in the next training and service activities requires diversification of training methods to provide in-depth experience and knowledge to participants. As there are several methods that can be done, including simulation and mentoring on one person, so that participants gain in-depth knowledge related to learning using digital media.

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