Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang

[1]**Silvia Permatasari***, [1]**M. Nur Mustafa, [1]Tria Putri Mustika, [1]Adib Alfalah, [1]Anisa Putri Rahayu, [1]Ilham Ramadhan**
[1]Universitas Riau, Indonesia

*Corresponding author
E-mail: silvia.permatasari@lecturer.unri.ac.id

Abstract

Purpose: This study aims to increase teachers' knowledge of differentiated learning, and the use of PowerPoint-based learning media integrated with ClassPoint.

Method: Data was collected through initial and final tests to measure teachers' knowledge, feedback questionnaires to evaluate the training experience, and practice observations to assess the application of the material. The collected data were analyzed quantitatively by comparing test results and qualitatively through analysis of feedback and practice observations.

Practical Application: Improve teachers' understanding of the concept of differentiated learning and the use of PowerPoint media integrated with ClassPoint, making learning more interactive.

Conclusion: The participants were actively involved in the delivery of materials and practices and were satisfied with the training, from the delivery of materials to technical support. The average score of the participants' initial test was 85.00, which increased to 88.00 after the training, indicating an increase in understanding.

301) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Introduction

Teachers have a strategic role in the success of education, especially in adapting relevant learning methods and media to improve the quality of the teaching-learning process. The evolving curriculum requires teachers to have skills in making effective learning media, so that learning objectives can be achieved and the quality of learning outcomes improved (Sultan et al., 2023). In addition, teachers also need to be able to accommodate the learning needs of each student through an approach that is tailored to individual student differences, known as differentiated learning (Sugiarti et al., 2023). This approach emphasizes the importance of a deep understanding of the unique characteristics and potential of each learner (Karmila, 2024).

Learner differences in differentiated learning include various aspects, such as learning approaches, gender, learning preferences, motivation levels, interests, abilities, and other factors (Rahmawati, 2023). The success of learning is highly dependent on the teacher's ability to create effective and meaningful learning experiences for students with various backgrounds. In differentiated learning, there are three aspects that can be differentiated by the teacher so that students understand the material being learned, namely the content taught, the process or meaningful activities carried out by students, and the assessment in the form of making products to measure the achievement of learning objectives (Kristiani et al., 2021).

At junior high school 4 Tambang, many teachers face obstacles in developing interactive and technology-based learning media. In fact, the use of media can arouse interest in learning and increase student motivation and enthusiasm (Abdullah, 2016). In addition, learning media is one of the efforts to improve the quality of learning which has an impact on the quality of education in schools (Zaki & Islam, 2022). For this reason, the use of learning media needs to be adjusted to the objectives that have been set (Miftah & Nur Rokhman, 2022). The use of appropriate learning media can improve students' skills, help them master the material optimally, and improve learning outcomes and technological capabilities of students through digital learning media (Aldi et al., 2021). In modern education, digitalization is an innovation needed to face increasingly fierce competition in the era of globalization (Saparina et al., 2020). Therefore, the media is a very strategic instrument in determining the success of the teaching and learning process (Alti et al., 2022).

As an important part of the learning system, learning media must be aligned with the learning components to function optimally in supporting the process (Batubara & Ariani, 2019). The use of technology-based media, such as PowerPoint integrated with ClassPoint, offers flexibility for teachers to deliver materials interactively. PowerPoint, as a presentation application developed by Microsoft, can be combined with ClassPoint to increase interactivity in learning (Anggraeni & Wachidah, 2024; Aryati, 2021). Through this integration, teachers can create more interesting presentations and interact directly with students (Martani, 2023). However, many teachers at junior high school 4 Tambang still experience difficulties in utilizing this technology optimally, and most are not even familiar with it, so this training is needed to support the improvement of their competence in developing innovative and effective learning media.

The purpose of this community service activity is to improve the understanding and skills of teachers at junior high school 4 Tambang in implementing differentiated learning using PowerPoint integrated with ClassPoint. Hopefully, with this training, teachers can be more proficient in creating interactive learning media, according to the needs and abilities of students, so that the quality of learning increases and educational goals can be achieved optimally.

302) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Method

This research was conducted at junior high school 4 Tambang and involving 20 teachers as trainees. Data was collected through initial and final tests to measure teachers' knowledge, feedback questionnaires to evaluate the training experience, and practice observations to assess the application of the material. The collected data were analyzed quantitatively by comparing test results and qualitatively through analysis of feedback and practice observations. The results of the analysis were used to interpret the improvement of participants' understanding and evaluate the effectiveness of the training.

Result

The implementation of differentiated learning through PowerPoint media integrated with ClassPoint at junior high school 4 Tambang has been carried out in accordance with the plan. This activity was attended by 20 teachers from various subjects at junior high school 4 Tambang. Based on the results of observation and evaluation, there are several achievements that can be described as follows.

During the training session at junior high school 4 Tambang, participants showed very active involvement. At the beginning, the speaker gave a detailed explanation of the concept of differentiated learning and ClassPoint integration in PowerPoint media. Participants were enthusiastic in listening to the material and immediately asked relevant questions to clarify the newly introduced concepts.

Figure 1. Material Delivery Activity

In the hands-on session, the speaker along with the service team went around the training room, providing technical guidance to participants. Some participants who experienced difficulties in using ClassPoint features were personally assisted by the presenters and the service team. This process went smoothly, where participants who were more proficient in technology also helped other colleagues.

Figure 2. Service Team Providing Technical Guidance

303) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Based on the results of the distribution of tests distributed to service participants, the following data was obtained.

Table 1. Tabulation of Participants' Comprehension Score

No	Name	Field of Study	Initial Score	Final Score
1	Participant 1	Natural Sciences	100	100
2	Participant 2	English	80	100
3	Participant 3	Informatics	100	100
4	Participant 4	Civics Education	60	60
5	Participant 5	English	80	100
6	Participant 6	Indonesian	40	60
7	Participant 7	Indonesian	80	100
8	Participant 8	Social Sciences	100	100
9	Participant 9	Guidance Counseling	100	100
10	Participant 10	Social Sciences	60	60
11	Participant 11	Enterpreneurship	60	60
12	Participant 12	Indonesian	80	60
13	Participant 13	Natural Sciences	100	80
14	Participant 14	Informatics	100	100
15	Participant 15	Informatics	80	80
16	Participant 16	Art and Culture	100	100
17	Participant 17	Art and Culture	100	100
18	Participant 18	Natural Sciences	100	100
19	Participant 19	Islamic Religious Education	100	100
20	Participant 20	Social Sciences	80	100
	Amount		1700	1760
	Average		85	88

Source: Processed primary data, 2024

Based on the table, the data shows the results of the initial and final tests related to the knowledge of participants in the service activities at junior high school 4 Tambang related to differentiated learning and the use of PowerPoint integrated with ClassPoint. A total of 20 participants from various subject areas, including Science, Social Studies, English, Indonesian, Civics, Informatics, Cultural Arts, Guidance Counseling, Workshop and Entrepreneurship, and Islamic Education, participated in this activity. Participants' initial test scores varied, with the lowest score of 40 and the highest score of 100. The total score of all participants in the initial test reached 1700, with an average score of 85.00. This indicates that participants generally have a fairly good understanding of the topic of differentiated learning and the use of ClassPoint integrated PowerPoint. After receiving material from the service team, there was a slight increase in participants' understanding of the material presented. Of the 20 participants, the total score obtained in the final test was 1760 with an average score of 88.00. Compared to the initial test results, there was an increase in total score of 60 points with an average increase of 3 points, which indicates an increase in participants' understanding after receiving material from the service team.

304) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Discussion

To assess the effectiveness and quality of the service activities that have been carried out, a comprehensive evaluation of the implementation of the activities is carried out. This evaluation aims to identify the extent to which the objectives of the activity were achieved, as well as to collect feedback from participants regarding their experience and satisfaction. The following are the results of the participant satisfaction questionnaire for this service activity.

Figure 3. The material presented is easy to understand
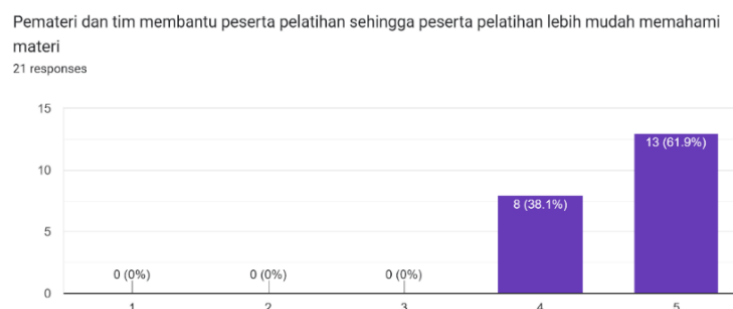

Materi yang disampaikan mudah dipahami
21 responses
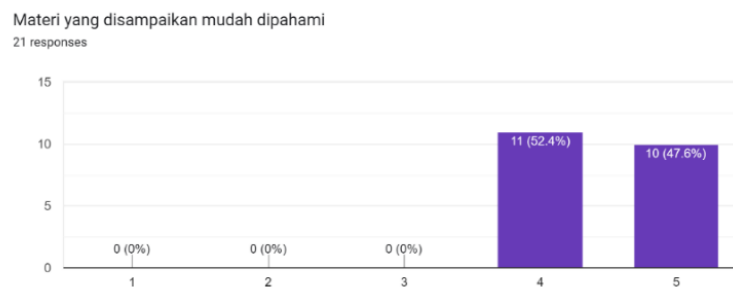
Based on this data, the level of participant satisfaction with the ease of understanding the material in the activity shows that 47.6% of participants responded, "Very Good", indicating that participants felt that the material presented was very clear and easy to understand. Meanwhile, 52.4% of participants responded "Good", indicating that the material was also quite easy to understand for participants.

Figure 4. The speaker delivered the material in a concise and easy-to-understand manner

Pemateri menyampaikan materi dengan ringkas dan mudah dipahami.
21 responses

The data illustrates the participants' level of satisfaction with the way the material was delivered by the presenters during the activity. The data shows that 57.1% of participants rated the delivery of the material as "Very Good", indicating that participants felt the material was delivered in a very concise and easy-to-understand manner. While 42.9% of participants gave a rating of "Good", indicating that although not all participants gave the highest rating, participants still felt that the material was delivered quite well and was easy to understand.

Figure 5. Presenters and team assisting trainees

Pemateri dan tim membantu peserta pelatihan sehingga peserta pelatihan lebih mudah memahami materi
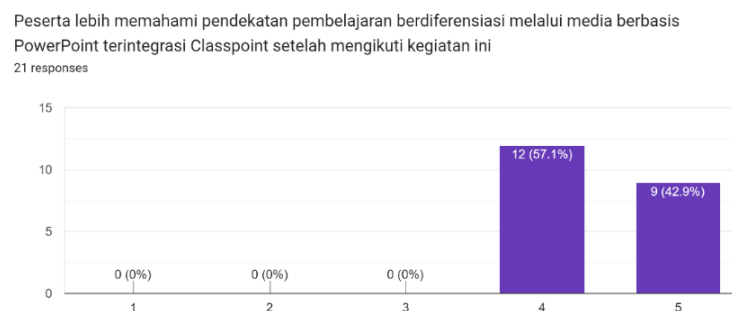21 responses

The data illustrates the participants' level of satisfaction with the assistance provided by the presenters and team during the training. The data shows that 61.9% of participants rated the support from the presenters and team as "Very Good", indicating that participants felt very helpful and received adequate support so that they could more easily understand the material. Meanwhile, 38.1% of participants rated the support as "Good", indicating that participants also felt that they received sufficient support, although they did not give the highest rating.

Figure 6. The speaker delivered the material in a structured manner

Pemateri menyampaikan materi secara terstruktur
21 responses
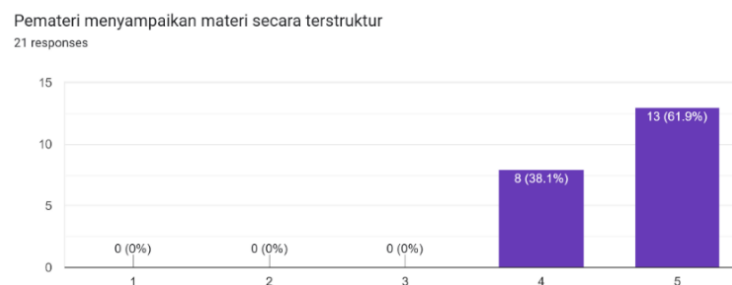
The figure shows participants' assessment of the structured delivery of materials by the presenters during the training. The data shows that 61.9% of participants rated the delivery of the materials as "Excellent", indicating that the majority of participants felt that the materials were delivered in a systematic and organized manner, making it easy for participants to follow the learning flow. A total of 38.1% of participants rated it as "Good", which also shows appreciation for the structured delivery of the materials, albeit with some room for improvement.

Figure 7. Understanding differentiated learning approaches through ClassPoint integrated PowerPoint media

Peserta lebih memahami pendekatan pembelajaran berdiferensiasi melalui media berbasis PowerPoint terintegrasi Classpoint setelah mengikuti kegiatan ini
21 responses

The figure shows the participants' level of understanding of the differentiated learning approach through PowerPoint media integrated with ClassPoint. The data shows that 42.9% of participants responded, "Very Good", indicating that almost half of the participants felt that the training was very effective in helping them understand the differentiated learning approach. A total of 57.1% of the participants responded "Good", indicating that most of the participants felt moderately helped in understanding the material, although there was room for further improvement.

306) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Figure 8. Contribution or benefit in task implementation/ performance
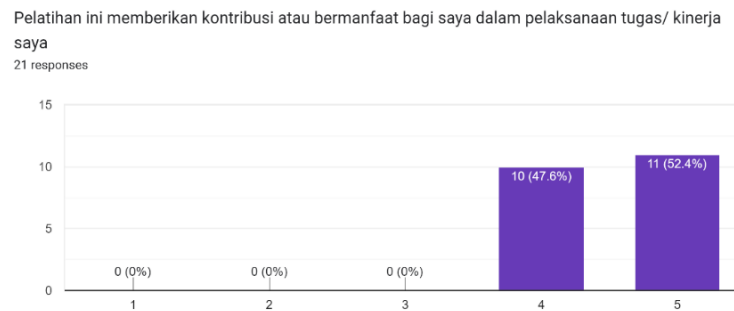
The data shows the participants' assessment of the benefits of the training in supporting their tasks or performance. The data shows that 52.4% of participants responded, "Very Good", indicating that more than half of the participants felt that the training made a significant and very useful contribution to their performance at school. While 47.6% of participants rated the benefits of the training as "Good", indicating that the training was also considered useful, although not with the maximum contribution according to some participants.
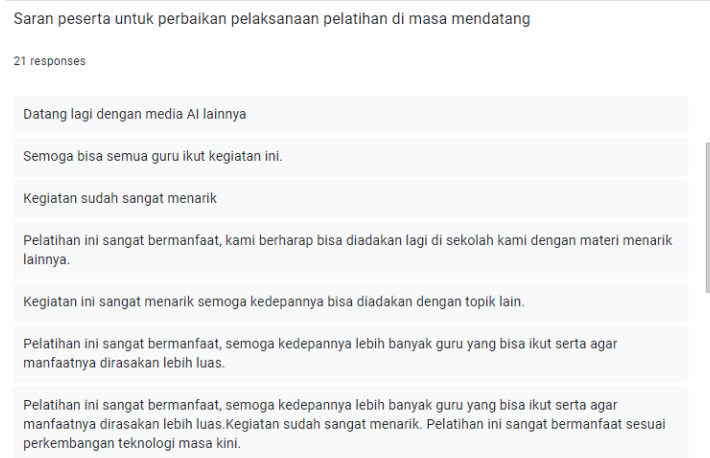
Figure 9. Benefits of training

Based on the participants' responses to the question of benefits after attending this training, most of the participants found it easier to use ClassPoint in the learning process, which not only made the class more interactive, but also favored by students. Participants also claimed to gain a lot of new knowledge, ranging from making quiz questions using ClassPoint to designing more interesting learning. In addition, the training helped participants enhance their creativity in developing technology-based learning media and provided new insights into differentiated learning approaches. Some participants also stated that this was the first time they were familiar with ClassPoint, thus increasing their knowledge about innovation in education. In general, the training was considered very useful in improving the quality of teaching and technology skills of the participants.

307) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Figure 10. Participant's suggestion

Saran peserta untuk perbaikan pelaksanaan pelatihan di masa mendatang

21 responses

Datang lagi dengan media AI lainnya

Semoga bisa semua guru ikut kegiatan ini.

Kegiatan sudah sangat menarik

Pelatihan ini sangat bermanfaat, kami berharap bisa diadakan lagi di sekolah kami dengan materi menarik lainnya.

Kegiatan ini sangat menarik semoga kedepannya bisa diadakan dengan topik lain.

Pelatihan ini sangat bermanfaat, semoga kedepannya lebih banyak guru yang bisa ikut serta agar manfaatnya dirasakan lebih luas.

Pelatihan ini sangat bermanfaat, semoga kedepannya lebih banyak guru yang bisa ikut serta agar manfaatnya dirasakan lebih luas.Kegiatan sudah sangat menarik. Pelatihan ini sangat bermanfaat sesuai perkembangan teknologi masa kini.

Based on feedback from participants, the training was generally considered very good and useful. Many participants hoped that more teachers could participate in similar training in the future so that the benefits could be felt more widely. Participants also wanted this activity to be held again in schools with other interesting topics, including the introduction of artificial intelligence (AI)-based media. Overall, participants felt that the training was very relevant to the current needs of educators and had a positive impact on the learning process in the classroom.

Conclusion

Based on the results of the training activities carried out at junior high school 4 Tambang, it can be concluded that the implementation of the training went well and in accordance with the objectives set. All participants showed active involvement during the activity, both in the material delivery session and in direct practice. The average initial test scores of the participants showed that most of them already had a fairly good understanding of the concept of differentiated learning and the use of PowerPoint integrated with ClassPoint, with an average score of 85.00. After the training, the average score increased to 88.00, indicating an increase in understanding although the increase was relatively small. The evaluation of this activity showed that the majority of participants were satisfied with the implementation of the training, both in terms of material delivery, activity structure, and technical support provided by the presenters and team. This training is considered very useful, especially in improving participants' skills in using technology-based learning media and understanding of differentiated learning approaches.

Acknowledgements

308) Implementation of Differentiation Learning Through ClassPoint-Integrated PowerPoint-Based Media at Junior High School 4 Tambang, Permatasari, S., Mustafa, M. N., Mustika, T. P., Alfalah, A., Rahayu, A. P., Ramadhan, I.

Reference

Abdullah, R. (2016). Pembelajaran dalam Perspektif Kreativitas Guru dalam Pemanfaatan Media Pembelajaran. Lantanida Journal, 4(1), 35–49. https://doi.org/10.22373/lj.v4i1.1866

Aldi, Mapincara, A., & Mus, S. (2021). Persepsi Siswa tentang Penggunaan Media Pembelajaran Digital di SMP Negeri 1 Bantaeng. Jurnal Ilmiah Pendidikan dan Pengembangan Pembelajaran, 10(10).

Alti, R. M., Anasi, P. T., Silalahi, D. E., Fitriyah, L. A., Hasanah, H., Akbar, M. R., Arifianto, T., Kamaruddin, I., Malahayati, E. N., Hapsari, S., Jubaidah, W., Yanuarto, W. N., Agustianti, R., & Kurniawan, A. (2022). Media Pembelajaran (T. P. Wahyuni (ed.); 1 ed.). PT. Global Eksekutif Teknologi.

Anggraeni, F., & Wachidah, K. (2024). Desai Media Pembelajaran Ensiklopedia Interaktif Bagi Penyandang Difabel. Jurnal Pendidikan dan Media Pembelajaran (JUNDIKMA), 03(01).

Aryati, S. (2021). Peningkatan Kemampuan Guru dalam Pemanfaatan Microsoft Office PowerPoint untuk Meningkatkan Pembelajaran di SMP Swasta 6 Muhammadiyah Lhokseumawe dan Smp Negeri 4 Lhokseumawe. EDUTECH : Jurnal Inovasi Pendidikan Berbantuan Teknologi, 1(2), 149–153. https://doi.org/10.51878/edutech.v1i2.461

Batubara, H. H., & Ariani, D. N. (2019). Model Pengembangan Media Pembelajaran Adaptif di Sekolah Dasar. Muallimuna: Jurnal Madrasah Ibtidaiyah, 5(1), 33–46.

Karmila, M. (2024). Implementasi Pembelajaran PjBL Berdiferensiasi Berbasis Kearifan Lokal dalam Mengembangkan Keterampilan 4C Peserta Didik. JSG: Jurnal Sang Guru, 2(3), 27–37.

Kristiani, H., Susanti, E. I., Purnamasari, N., Purba, M., Saad, M. Y., & Anggaeni. (2021). Model Pengembangan Pembelajaran Berdiferensiasi (N. Purnamasari, M. Purba, & M. Falah (ed.); 1 ed.). Pusat Kurikulum dan Pembelajaran, Badan Standar, Kurikulum, dan Asesmen Pendidikan, Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, Republik Indonesia.

Martani, E. (2023). Penggunaan Media Elis-Clapo dalam Peningkatan Motivasi Belajar Sains Kelas 5 MIN 1 Magelang. Jurnal Indopedia (Inovasi Pembelajaran dan Pendidikan), 1(4), 1166–1176.

Miftah, M., & Nur Rokhman. (2022). Kriteria Pemilihan dan Prinsip Pemanfaatan Media Pembelajaran Berbasis TIK Sesuai Kebutuhan Peserta Didik. Educenter : Jurnal Ilmiah Pendidikan, 1(4), 412–420. https://doi.org/10.55904/educenter.v1i4.92

Rahmawati, R. (2023). Implementasi Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka di Sekolah Dasar. Social, Humanities, and Educational Studies (SHES): Conference Series, 6(3), 234–240. https://doi.org/10.20961/shes.v6i3.82334

Saparina, M., Suratman, D., & Nursangaji, A. (2020). Kelayakan Flipbook Digital sebagai Media Pembelajaran pada Materi Lingkaran di Kelas VIII SMP. Jurnal Pendidikan dan Pembelajaran Khatulistiwa, 9(9), 1–11.

Sugiarti, Muharram, & Syahrir, M. (2023). Sosialisasi Penerapan Pembelajaran Berdiferensiasi Bagi Kelompok Guru SMAN 11 Pangkep. Prosiding Seminar Nasional Hasil Pengabdian 2023, 592–598.

Sultan, M. A., Sainal, Z., Djabba, R., Muslimin, & Mukhlisa, N. (2023). PKM Pelatihan Pengembangan Media Pembelajaran Berbasis Canva. Prosiding Seminar Nasional Hasil Pengabdian 2023, 688–692.

Zaki, R. A., & Islam, M. A. (2022). Pengembangan Media Pembelajaran Menggambar Ilustrasi Berbasis Motion Graphic. Jurnal Seni Rupa, 10(3), 27–37.