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Community Service for Students' Development: Strengthening IPAS Digital Teaching Media Competence Through Book Creator at SDIT Darul Istiqomah Palangka Raya

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Abstrak

Penggunaan teknologi dalam pembelajaran masih menjadi tantangan bagi banyak calon guru sekolah dasar, khususnya dalam mengembangkan media ajar digital yang interaktif dan menarik. Di SDIT Darul Istiqomah Kota Palangka Raya, keterbatasan keterampilan calon guru dalam memanfaatkan teknologi menyebabkan pembelajaran IPAS belum berjalan secara optimal. Untuk menjawab tantangan ini, kegiatan Pengabdian kepada Masyarakat (PkM) dilaksanakan secara kolaboratif antara dosen dan mahasiswa PGMI guna meningkatkan kompetensi calon guru dalam mengembangkan bahan ajar digital berbasis Book Creator. Program ini menerapkan pendekatan Asset-Based Community Development (ABCD) yang berfokus pada pemberdayaan potensi yang dimiliki oleh mitra sekolah. Pelaksanaan kegiatan meliputi pelatihan, pendampingan, dan evaluasi implementasi media ajar dalam pembelajaran. Evaluasi dilakukan melalui pretest dan posttest untuk mengukur peningkatan pemahaman peserta, serta observasi terhadap penerapan media ajar di kelas. Hasil kegiatan menunjukkan bahwa 90% peserta mengalami peningkatan keterampilan dalam membuat bahan ajar digital, dan 85% siswa menyatakan lebih termotivasi belajar dengan media interaktif yang dikembangkan. Kegiatan pengabdian ini tidak hanya meningkatkan kompetensi digital mahasiswa PGMI, tetapi juga berkontribusi terhadap peningkatan kualitas pembelajaran berbasis teknologi di sekolah mitra. Kolaborasi antara dosen, mahasiswa, dan pihak sekolah menunjukkan peran penting pendidikan tinggi dalam mendukung transformasi digital di pendidikan dasar.
Kata Kunci *- Pengabdian kepada Masyarakat, Book Creator, Mahasiswa PGMI, Media Pembelajaran Digital, IPAS, Pendekatan ABCD*

Abstract

The use of technology in learning remains a challenge for many prospective elementary school teachers, particularly in developing interactive and engaging digital teaching media. At SDIT Darul Istiqomah, Palangka Raya City, the limited ability of PGMI students to utilize technology has hindered the effectiveness of IPAS learning. In response, a collaborative Community Service (PKM) initiative involving PGMI lecturers and students was carried out to enhance the competence of future teachers in developing digital teaching materials using the Book Creator platform. This program applied the Asset-Based Community Development (ABCD) approach, emphasizing the empowerment of existing strengths within the community. The implementation involved a series of activities, including training sessions, technical assistance, and classroom-based evaluations of the media developed. Pretests and posttests were administered to assess participants' improvement, and classroom observations were conducted to evaluate the application of the digital media. The results showed that 90% of participants improved their skills in creating digital teaching materials, and 85% of elementary students reported increased motivation when learning with the interactive media produced. This community service

activity not only strengthened the digital media competencies of PGMI students but also contributed to improving the quality of technology-based learning in partner schools. Through collaborative engagement between lecturers, students, and the school community, the program supported the broader agenda of digital transformation in basic education.

Keywords *- Community Service, Book Creator, PGMI Students, Digital Learning Media, IPAS, ABCD Approach*

INTRODUCTION

Digital transformation in education has become an urgent need, especially in developing innovative and interesting learning media for students. However, at SDIT Darul Istiqomah Kota Palangka Raya, there are still limitations in the use of technology by PGMI students in developing digital teaching materials. Many PGMI students still rely on conventional learning methods with the use of Student Worksheets (LKS) and PowerPoint, which are less interactive, thus causing low student learning motivation and less optimal understanding of the concept of IPAS (Natural and Social Sciences) (Lusiana & Fathurohman, 2024) .

The limited skills of PGMI studentss in designing and using digital-based learning media are a major challenge. This is in line with the findings that interactive learning media can increase learning effectiveness and student engagement in the learning process. In addition, limited access to digital teaching materials that suit the needs of students is also an obstacle that needs to be overcome. Therefore, a service program is needed that can strengthen the capacity of PGMI students in utilising educational technology to improve the quality of learning (Azmi et al., 2024) .

The *Asset-Based Community Development (ABCD)* approach is an appropriate strategy in this program, as it focuses on strengthening the potential resources that already exist in schools and communities of PGMI students. Through training and mentoring, PGMI students are encouraged to develop digital learning media based on *Books Creator*, an interactive platform that allows the integration of text, images, videos and animations in one teaching material. The utilization of this technology not only increases the attractiveness of learning but also helps students in understanding concepts more deeply through visual and interactive exploration (Sakti et al., 2023) .

This PKM activity aims to:

1. Improve the competence of PGMI students in developing digital teaching materials based on *Books Creator* for IPAS learning.
2. Improve learning quality by integrating digital learning media that is more interactive and innovative.
3. Measuring the effectiveness of the implementation of digital teaching materials in increasing student motivation and understanding of IPAS materials.
4. Encouraging the continuation of the utilisation of educational technology by PGMI students in the daily learning process at SDIT Darul Istiqomah.

With this program, it is expected that there will be significant improvements of future teachers' skills, student learning experiences, and the quality of technology-based learning in primary schools. The success of this program can also serve as a model for other schools in adopting digital innovations to support educational transformation in the era of the Industrial Revolution 4.0.

METHOD

This Community Service activity (PKM) uses an Asset-Based Community Development (ABCD) approach that focuses on utilising the potential and assets already owned by the community, in this case, PGMI students at SDIT Darul Istiqomah, to improve their skills in developing digital teaching materials based on *Books Creator*. The method of implementing this activity consists of four main stages,

namely (1) Asset Identification and Exploration, (2) Asset-Based Program Planning, (3) Activity Implementation, and (4) Continuous Evaluation and Assistance (Sakti et al., 2023) .

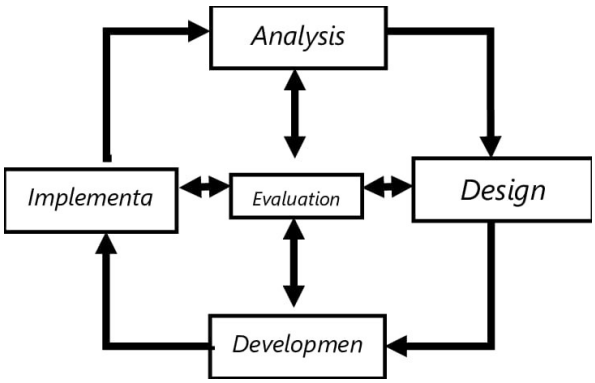

Figure 1.
ADDIE model

1) Asset Identification and Exploration

In the initial stage, the potential and needs of PGMI students related to the utilisation of digital learning media were identified. This activity involved:

- Observations and interviews with PGMI students to find out the extent of their skills in using educational technology.
- Focus group discussions (FGDS) to explore the challenges faced in developing digital-based teaching materials and the potential that can be utilised**.**
- Identify assets and resources in the school, such as the availability of computer devices, internet access, as well as the experience of PGMI students in using technology.

This approach allows the PKM team to understand the context of the problem more deeply and find solutions based on the strengths that the school community already has.

2) Asset-based Program Planning

Based on the identification results, the next step was to design a training program that suited the needs and existing assets. The activity plan includes:

- Preparation of training modules covering introduction to educational technology, introduction to Books Creator**,** digital teaching material development techniques, and implementation strategies in learning**.**
- Scheduling training and mentoring that is tailored to the free time of PGMI students so that the program can run effectively without disrupting the teaching and learning process.
- Preparation of tools and media to be used, such as laptops, projectors, video tutorials, and printed and digital guides to facilitate the transfer of knowledge and skills.

Through this planning, PGMI students have a clear picture of the objectives and benefits of the program.

3) Activity Implementation

The main activity in this PKM program is technical assistance for PGMI students in developing digital teaching materials. The implementation was carried out in several sessions with 4 IAIN Palangka Raya lecturers as mentors and also expert validators: M. Sabrina, M.Pd, Sulistyowati, M.Pd, Zaitun Qamariah, M.Pd, and Hadma Yuliani, M.Pd. The activity is as follows:

a) Basic Training: Introduction to Technology and *Books Creator*

- PGMI students are introduced to the concept of educational technology and how interactive media can improve student understanding.

- Hands-on sessions on using *Books Creator*, from importing materials, adding multimedia elements (images, video, audio), to designing interactive displays.
- Demonstration and self-practice methods were used to ensure each participant could operate the application properly.

b) Development of Digital Teaching Materials
- PGMI students are given the task to create one digital teaching material that will be used in IPAS learning.
- Intensive mentoring is provided to ensure that each PGMI students can develop teaching materials that are in accordance with the curriculum and student needs.
- Collaboration between PGMI students is facilitated so that they can share ideas, exchange experiences, and strengthen digital learning communities in schools.

c) Classroom Testing and Implementation
- PGMI students apply the developed digital teaching materials in classroom learning sessions.
- Observations and reflective discussions were conducted to identify challenges in implementation as well as the effectiveness of the teaching materials in increasing student engagement.
- Students were given a simple questionnaire to measure their response to the digital teaching materials used.

4) Continuous Evaluation and Mentoring

After implementation, a comprehensive evaluation is conducted to assess the success of the program and design a sustainability strategy. This stage includes:
- Pretest and posttest to measure the improvement of PGMI students' skills before and after the training.
- Interviews and discussions with PGMI students to evaluate the benefits of the program and the obstacles that are still faced.
- Formulation of sustainability recommendations, such as the formation of a discussion group for PGMI students to share experiences and further enrichment related to educational technology.

In addition, the PKM team continues to provide regular assistance to ensure the sustainability of digital learning media utilization at SDIT Darul Istiqomah. The success of this program is expected to be a model for other schools in adopting educational technology to improve the quality of learning.

5) Tools and Media Used

To support the success of this program, some of the tools and media used in the implementation of activities include:
- Laptops and smartphones are used for hands-on practice of digital teaching material development.
- Projectors and presentation screens support training sessions and demonstrations.
- Video tutorials and digital modules as a guide for PGMI students in developing teaching media independently.
- Questionnaires and observation sheets to measure the effectiveness of the program, as well as participants' responses.
- Online discussion group (WhatsApp/Google Classroom) as a forum for post-training communication and mentoring.

With an ABCD approach that focuses on community empowerment, this PKM activity not only improves individual skills but also builds a technology-based learning ecosystem in schools. It is hoped that this program can contribute to improving the quality of education, especially in the implementation of more interactive and effective digital teaching materials (Khotijah, 2024) .

RESULTS AND DISCUSSION

This community service activity (PKM) on November 11-22 at SDIT DARUL ISTIQOMAH, Palangka Raya City, aims to improve the competence of PGMI students in developing digital learning media based on *Books Creator* and integrating technology in the teaching and learning process. Evaluation of the results of the activity is carried out through quantitative and qualitative data measurement, which reflects the achievement of the PKM objectives and the impact on PGMI students and students at SDIT Darul Istiqomah.

Figure 2.
Documentation

Achievement of PKM Objectives: Quantitative and Qualitative Data

The results of the pretest and posttest showed a significant improvement in the PGMI students' skills in developing digital teaching media. Before the training, only 30% of PGMI students understood how to create *Books Creator-based* teaching materials, while after the training, this figure increased to 90%.

In addition, the effectiveness of digital teaching materials was tested in IPAS learning, with positive responses from students. Observation results showed that 85% of students were more motivated to learn with interactive media compared to the previous conventional method. PGMI students also reported that this technology-based teaching material helped improve students' understanding of the material.

1) Material Expert

Obtained a score of 97%. This score indicates that the teaching materials are considered very suitable for use in the learning process. This material expert validation is an important step in the process of developing teaching materials, because it ensures that the content presented has met the expected quality standards, both in terms of material accuracy, relevance to the curriculum, and suitability to student needs.

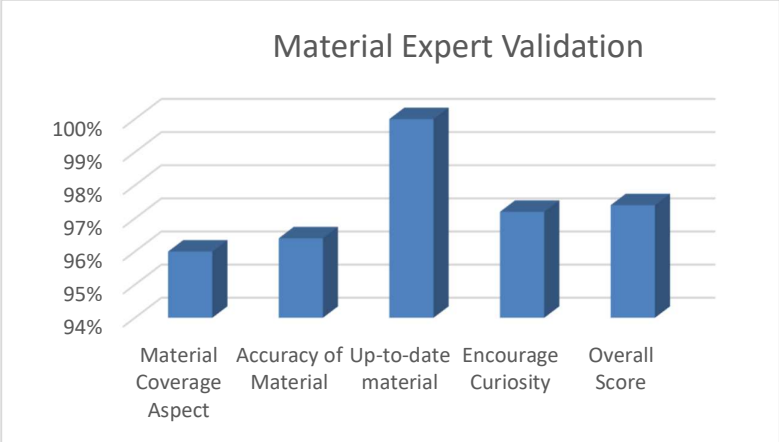

Figure 3.
Graph of Material Expert Assessment

2) Design Expert

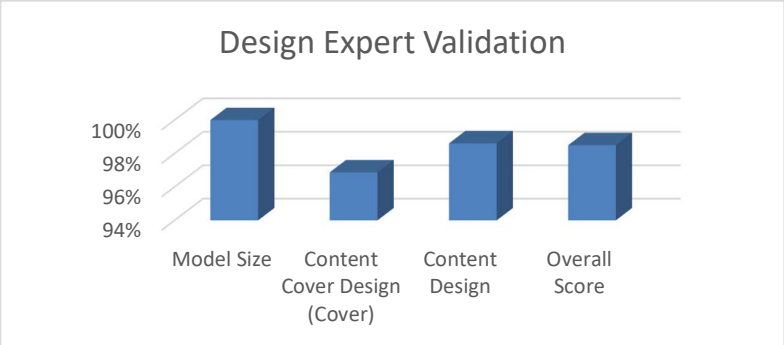

Figure 4.
Graph of design expert assessment

The results of the design expert validation are shown in Figure 4, which shows that the development of Books Creator teaching materials in the form of interactive learning media on IPAS material about the " What Animals Are Around You class III B at SDIT DARUL ISTIQOMAH Kota Palangka Raya is 98% or very feasible.

3) Candidate Assessment Results

The PGMI students' assessment above shows that the Books Creator teaching material in the form of interactive learning media obtained a "very feasible" qualification of 88%.

In terms of the quality of teaching materials, expert validation showed high scores: 97% from material experts, 98% from design experts, and 88% from PGMI students' assessment. This

confirms that the teaching materials resulting from PKM activities are suitable for use as innovative learning tools.

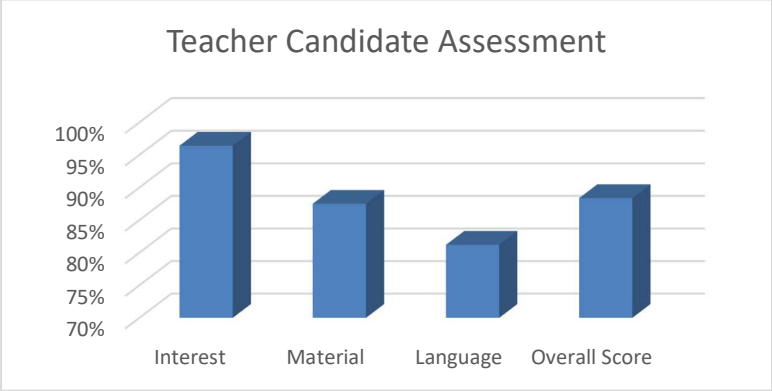

Figure 5.
PGMI students Assessment Chart

Concrete Evidence of Positive Changes in Society

The results of the PKM activities showed **a** real change in the teaching pattern at SDIT Darul Istiqomah**:**

- PGMI students who previously only relied on textbooks and lecture methods are now able to create interactive digital teaching materials that are more attractive to students.
- Improving PGMI students' skills in educational technology promotes innovation in teaching and learning.
- The establishment of a digital learning community among PGMI students, which allows them to share experiences and enrich technology-based learning strategies.

The long-term impact of this activity is to improve the quality of technology-based learning, as well as the readiness of schools to adopt digital education innovations as part of a more modern and effective teaching strategy.

Factors Affecting Success and Obstacles

1) Success Factors
   - The enthusiasm of PGMI students in learning new technologies was a major factor in the success of the training. The majority of participants showed high motivation in developing their digital skills.
   - Support from the school, including the provision of technology facilities, also accelerates the implementation of digital teaching materials.
   - The ABCD approach used is effective in empowering PGMI students by utilizing their existing assets, such as teaching experience and access to basic technology tools.

2) Obstacles Faced
   - The level of digital literacy of PGMI students varied**,** so some participants took longer to understand the use of *Books Creator*.
   - Limited internet access**,** which hampered some training sessions and the application of digital-based teaching materials in the classroom.
   - The limited training time**,** given the PGMI studentss' busy teaching schedules, necessitated additional sessions for mentoring.

Overcoming these obstacles requires sustainability strategies, such as tiered training, online mentoring, and procurement of more adequate technological devices**.**

Critical Reflections on Method Effectiveness and its Implications

The Asset-Based Community Development (ABCD) approach proved effective in implementing this PKM because:

- Focus on utilizing existing assets, so that PGMI studentss do not feel burdened by new technology that is completely foreign to them.
- Hands-on learning methods help PGMI studentss understand technology applications more effectively than theory alone.
- Collaboration among PGMI studentss in training sessions and online discussions accelerated the technology adoption process.

However, there are some aspects that could be improved for future program effectiveness:

1. Provide training materials in video tutorial format so that PGMI students can learn independently at their own pace.
2. Increase the flexibility of access to digital teaching materials, for example by creating a digital resource bank to share materials between PGMI studentss.
3. Strengthen long-term evaluation, by conducting periodic monitoring to see how far the utilization of digital teaching materials continues in schools.

The implication of this activity is that digital transformation in education requires not only technical training but also school policy support and sustainability in developing the skills of PGMI students.

CONCLUSION

The results of this Community Service (PKM) activity indicate that training based on Book Creator is effective in enhancing the digital competencies of PGMI students and fostering greater engagement in classroom learning. The program led to several positive outcomes, including the improvement of students' digital literacy, increased motivation among elementary learners, and the initial formation of a technology-oriented learning community within the school. Furthermore, the application of the Asset-Based Community Development (ABCD) approach successfully leveraged the existing strengths and resources of the school environment to support the implementation of digital learning media. Despite facing certain challenges, the collaborative nature of this initiative—between lecturers, PGMI students, and school partners—proved to be a critical factor in the program's success. This initiative demonstrates a promising model for the sustainable integration of technology in elementary education and underscores the role of higher education in supporting digital transformation at the school level.

SUGGESTION

1. Program Replication in Other Schools: The success of this program suggests its potential to be replicated in other elementary schools, especially those seeking to adopt digital learning tools with limited resources.
2. Institutional Support and Sustainability: Educational institutions should provide continued support to PGMI students through follow-up programs, mentorship, and integration of digital media training into the academic curriculum to ensure long-term sustainability.
3. Further Collaboration: Strengthening collaboration between universities and schools can help address local educational challenges while providing PGMI students with valuable real-world teaching experience.
4. Development of Digital Media Libraries: To expand the impact, the digital teaching materials developed by students can be compiled into a media library accessible to teachers and schools for ongoing use.

5. Monitoring and Evaluation: Regular monitoring and evaluation mechanisms should be implemented to assess the impact of the developed media on learning outcomes and to continuously improve the content and methods.

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