

Strengthening Social Studies Teachers' Competence in Developing Digital Storybooks Based on Dayak Deah Local Wisdom

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ABSTRACT

This community service activity aimed to strengthen teachers' understanding in developing digital teaching materials through storybook digital based on Dayak Deah local wisdom for social studies learning at SMPN 2 Upau, Tabalong Regency. The activity was carried out through workshop, mentoring, and classroom implementation stages involving 12 teachers, including social studies teachers as the main participants. Data collection was conducted using pretest-post test instruments, observation, interviews, and student response questionnaires. The workshop focused on introducing digital teaching materials, training in developing storybook digital using *Canva*, and integrating Dayak Deah cultural values into social studies learning materials. The results showed that teachers' average score increased from 62 points in the pretest to 72 points in the posttest after participating in the training and mentoring activities. The improvement was mainly seen in teachers' understanding of *Canva* operation, storybook preparation, integration of local cultural values, and visual design of digital teaching materials. The classroom implementation results also showed positive student responses, with an average score of 87.33% categorized as very feasible. Students considered the storybook digital easy to use, attractive, and helpful in understanding social studies materials and local cultural values. The activity indicates that integrating digital technology and local wisdom can support more contextual and meaningful social studies learning while helping preserve local cultural values in educational practices.

Keywords: Dayak Deah, digital learning materials, local wisdom, social studies instruction

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INTRODUCTION

Community service (*Pengabdian kepada Masyarakat/ PkM*) represents one of the vital roles of higher education institutions in delivering contributions that yield positive impacts on society. The primary focus of this community service is to improve the quality of education and instruction, particularly within the context of digital technological advancements that have permeated all aspects of life, remaining relevant to curriculum needs and contemporary demands within the educational sphere. Several studies indicate that technology-based education is capable of enhancing learning effectiveness and teacher professional development, as elucidated by Permana et al., (2024), Khofifah et al., (2024), and Sugiarto et al., (2023). These researchers concur that the utilization of technology in instruction helps augment student motivation, literacy, and comprehension because it offers a more visually appealing and contextual presentation that aligns with current advancements (Khofifah et al., 2024; Permana et al., 2024; Sugiarto et al., 2023).

Upau District in Tabalong Regency is an area endowed with highly prominent cultural wealth. A major distinctiveness of this region is the presence of the Dayak Deah indigenous community, whose central distribution is located within this district and has been formally recognized through the establishment of the Dayak Deah Customary Village (Nadilla et al., 2024; Syaharuddin et al., 2025). This cultural abundance should present a major opportunity for teachers, particularly social studies teachers in Upau District, to develop contextual learning that aligns with the local lives of the students. One viable effort is to leverage digital platforms to package learning materials so that they become more engaging, interactive, and relevant to the local culture.

In instructional practices, the framework regarding the importance of integrating local wisdom values into education is extensive and supports the claim that this approach brings educational content closer to students' daily experiences. For instance, when local values such as mutual cooperation (*gotong royong*) and reverence for nature are embedded into the curriculum, students not only become more interested but also gain a deeper understanding of their identity (Chen et al., 2023; Waritsman et al., 2024). Based on a preliminary study previously conducted at SMPN 2 Upau, training on digital-based teaching material development serves as a strategic step to facilitate teachers, particularly in addressing two major current challenges: the demand for engaging and relevant teaching materials, and the necessity of integrating regional cultural values into instruction (Syaharuddin et al., 2025).

The training designed in this community service program is not limited to theoretical aspects but also encompasses direct practice and classroom implementation. This hands-on approach assists teachers in experiencing firsthand the benefits of digital technology in the learning process. The training materials are proven to encourage teachers to utilize available tools to not only deliver content but also preserve local culture through digital media (Benick, 2012). Previous research also demonstrates that digital-based learning connected to local contexts can boost student motivation and foster a sense of ownership toward cultural and social values (Tzima et al., 2020; Wilson et al., 2015).

Based on the issues outlined above, this community service activity aimed to assist teachers in developing digital teaching materials in the form of digital storybooks based on Dayak Deah local wisdom as contextual Social Studies learning media. Through this activity, teachers are expected to understand how to integrate the rich Dayak Deah local wisdom into instruction via technology, thereby producing learning materials that are close to the students' lives and culture.

Furthermore, this activity is projected to encourage teachers to be more active in utilizing digital media in social studies instruction and to deliver more engaging and contextual learning experiences. The intended impacts to be achieved through this

activity include: 1) teachers are able to produce digital teaching materials based on Dayak Deah local wisdom; 2) teachers are capable of integrating the generated teaching materials into instruction; and 3) students exhibit positive responses toward the use of these digital teaching materials based on Dayak Deah local wisdom.

METHODS

This community service (*Pengabdian kepada Masyarakat / PkM*) activity employed a participatory workshop approach combined with technical mentoring and product implementation trials. This approach was selected because it provides teachers with the opportunity to be directly involved in the development process of digital teaching materials based on local wisdom (Nurpratiwi et al., 2022). The activity was conducted at SMPN 2 Upau, Tabalong Regency, in August 2025.

The activity involved 12 teachers from SMPN 2 Upau, consisting of Social Studies teachers and several teachers of other subjects. The participants were selected based on a needs analysis which revealed that teachers still experienced limitations in developing digital teaching materials and integrating Dayak Deah local cultural values into instruction (Syaharuddin, et al., 2025).

The implementation stages of the activity consisted of three main components: 1) workshop/training; 2) technical mentoring; and 3) classroom product trials. During the workshop stage, participants received orientation regarding the concepts of digital teaching materials, principles of designing social studies teaching materials, and strategies for integrating local cultural values into instruction. This activity was conducted face-to-face, thereby allowing active interaction between the participants and facilitators.

Subsequently, in the technical mentoring stage, participants were guided in designing and developing digital teaching material products in the form of digital storybooks. A learning-by-doing approach was utilized so that teachers could directly comprehend the product development process and generate teaching materials that suited the learning context (Dakir, 2017). Through this mentoring, teachers were also encouraged to embed local values such as mutual cooperation (*gotong royong*) and reverence for nature, which constitute essential parts of the Dayak Deah cultural identity relevant to the educational context (Nadilla et al., 2024; Sahertian, 2021; Syaharuddin et al., 2025).

The final stage involved a trial implementation of the digital storybooks in the classroom to observe student responses toward the use of digital teaching materials based on Dayak Deah local wisdom. Data were collected through observation, documentation, and student response questionnaires using a 1–4 Likert scale, which were subsequently converted into percentages. Data validation was performed through the triangulation of observation results, documentation, and student responses. Furthermore, data were analyzed using quantitative descriptive and qualitative techniques to describe the execution of the activity, the storybook products generated by the teachers, and student responses toward the use of digital storybooks in social studies learning. Moreover, quantitative data were analyzed descriptively using percentages and average scores.

Through these three stages, the activity did not merely focus on delivering material but also provided practical experience for teachers in developing digital storybooks based on Dayak Deah local wisdom as social studies teaching materials (Anwar et al., 2023).

RESULT AND DISCUSSION

This community service (*Pengabdian kepada Masyarakat / PkM*) activity was implemented through workshop, mentoring, and digital storybook implementation trial stages based on Dayak Deah local wisdom in social studies learning. The primary focus of the activity was directed toward strengthening teachers' understanding regarding the

development of contextual digital teaching materials and the application of local cultural values into the learning process. The breakdown of the activities is presented as follows:

1. Workshop and Training

The workshop was conducted by involving 12 teachers from SMPN 2 Upau, including social studies teachers as core participants (see Figure 1). The initial stage of the activity commenced with a pretest to determine the teachers' initial level of understanding regarding digital-based teaching material development. From the pretest results, an average score of 62 points was obtained, indicating that the teachers' comprehension of this topic was still in the fair category and required reinforcement.

The workshop material focused on the introduction of digital teaching materials based on Dayak Deah local wisdom and its cultural values, as well as training in compiling digital storybooks for social studies learning. Facilitators provided insights into the utilization of digital technology in education and the importance of integrating local cultural values into teaching materials so that learning becomes more contextual and closer to students' lives. According to Ardiansyah et al., (2024), the integration of digital teaching materials based on local culture is capable of increasing student motivation and engagement because the learning content becomes more relevant to their daily lives.

In the practical stage, participants were mentored in compiling digital storybooks based on Dayak Deah local wisdom using the *Canva* platform (see Figure 2). The activity focused on constructing narratives, selecting local cultural illustrations, and integrating Dayak Deah cultural values such as mutual cooperation (*gotong royong*), reverence for nature, and social solidarity into the storybook content. Additionally, participants were also given the opportunity to draft initial designs of digital storybooks according to the social studies topics they taught.

After the execution of the workshop and the digital storybook compilation practice, the service team administered a post test to observe the teachers' understanding following the training activity. The posttest results demonstrated an increase in the average score to 72 points. This improvement was primarily evident in the teachers' proficiency in operating the *Canva* application, their understanding of digital storybook content formulation, the integration of Dayak Deah local cultural values, the arrangement of storybook visual layouts, and the alignment of teaching materials with social studies content. The increase in posttest scores indicated that the workshop and mentoring activities helped teachers understand the process of developing digital storybooks based on Dayak Deah local wisdom, particularly in the aspects of *Canva* operation, storybook content compilation, local cultural value integration, and the visual design of social studies teaching materials.

Throughout the activity, teachers demonstrated good enthusiasm, especially during the practical session of compiling local culture-based digital storybooks. This was reflected in the active involvement of participants in discussions, narrative formulation, and the selection of local cultural illustrations relevant to students' lives in Upau District.



Figure 1 Training Materials



Figure 2 Digital storybook based on Dayak Deah local wisdom values

2. Mentoring Activities

Mentoring activities were conducted face-to-face in the library of SMPN 2 Upau to assist teachers in refining the digital storybook designs compiled during the workshop stage (see Figure 3). Mentoring was carried out through direct discussions and technical guidance regarding story content formulation, social studies material adjustment, local cultural illustration selection, and digital storybook visual layout design to better fit the characteristics of junior high school students.

At this stage, teachers were guided in integrating Dayak Deah cultural values such as mutual cooperation, reverence for nature, and social solidarity into the storybook content. Furthermore, the mentoring was also focused on preparing teaching materials that were contextual and close to the daily lives of students in Upau District.

The results of the activity showed that one social studies teacher was able to produce a digital storybook ready for classroom implementation, while the majority of the other participants were still at the stage of drafting their initial digital storybooks. Nonetheless, all participants succeeded in designing digital teaching material frameworks that incorporated Dayak Deah local cultural elements relevant to social studies learning.

During the mentoring process, teachers appeared more active in discussing content compilation and aligning the material with the local context. Mentoring also helped teachers realize the importance of preparing teaching materials that were not only visually appealing but also capable of delivering social studies instruction that was closer to the social and cultural lives of the students.



Figure 3 Mentoring process and implementation review

3. Trial Activities, Impact, and Reflection

The next stage was the trial implementation of the digital storybook based on Dayak Deah local wisdom in Social Studies learning within one of the classrooms at SMPN 2 Upau (see [Figure 4](#)). The trial was conducted to observe student responses toward the use of digital storybooks as Social Studies teaching materials integrated with local cultural values.

During the trial implementation, the digital storybook was utilized in teaching social studies topics related to the social and cultural life of the community. Through the digital storybook, students did not only study social studies concepts theoretically but were also introduced to Dayak Deah cultural values such as mutual cooperation, reverence for nature, social solidarity, and environmental care.

To determine student responses toward the use of the digital storybook, the service team distributed student response questionnaires after the learning activity took place.



Figure 4. Classroom implementation

The results of the student responses are presented in the following [Table 1](#):

Table 1 Student response questionnaire regarding digital storybooks as social studies teaching materials

Evaluation Aspect	Indicator	Score (%)	Category
Ease of Use	Easy to understand, simple navigation, not confusing	88%	Very feasible
Attractiveness	Interesting illustrations, appropriate colors, arouses student enthusiasm	89%	Very feasible
Usefulness	Helps understand Tawas Jaa values, fosters environmental awareness	85%	Very feasible
Average		87.33%	Very feasible

Source: Processed Data (2025)

Based on the evaluation results seen in Table 1, it is evident that the integration of *Tawas Jaa* local wisdom within the digital storybook helped students comprehend social studies content and recognize local cultural values more contextually. The high scores in the usefulness aspect (85%) and attractiveness aspect (89%) indicated that local cultural elements were not only appreciated aesthetically but also provided meaningful comprehension for students. This digital storybook successfully simplified complex *Tawas Jaa* concepts such as mutual cooperation, reverence for nature, social solidarity, and

warding off misfortune (*tolak bala*) practices into narratives easily understood by students. The visual narrative assisted students in internalizing how the Dayak Deah community maintains equilibrium between humans and nature, as well as the importance of sustaining social harmony. This was reflected in the students' evaluation that this medium "helps understand *Tawas Jaa* values" remarkably well.

Based on interview results, the use of digital storybooks helped deliver learning experiences that were closer to students' lives, resulting in better interest toward Dayak Deah local culture. The cultural elements embedded within the storybook were highly relevant to the students' daily lives, thereby creating a more grounded learning experience and evoking a sense of pride in their local identity. This finding aligned with the attractiveness score (89%), which constituted the highest rating.

Tawas Jaa values that emphasize a harmonious relationship with nature (e.g., prohibitions against destroying forests, balanced resource utilization, and nature reverence rituals) can help students understand the significance of human-environmental harmony through contextual visual presentations and storylines. Furthermore, through visualization and plot, students can grasp ecological messages more concretely. The high usefulness score (85%) demonstrated that this storybook was not only informative but also educational in instilling environmental care attitudes. The integration of *Tawas Jaa* in digital media strengthens the principles of contextual, participatory, and meaningful social studies learning. This storybook serves as a bridge between social studies concepts such as environmental sustainability, social structures, cultural values, and civic responsibility with the context of the Dayak Deah community. Thus, this media successfully elevated local wisdom as an authentic and relevant learning source.

This finding aligns with the Contextual Teaching and Learning (CTL) approach, which emphasizes the importance of linking learning content with the real-life contexts of students (Wirda, 2025). This is also consistent with Vygotsky's sociocultural theory, which states that meaningful learning occurs through interaction within relevant cultural and social contexts (Silalahi, 2019). The implementation trial of digital storybooks in social studies learning yielded positive responses from both students and teachers. From the students' perspective, the digital storybook helped them understand social studies concepts through visual presentations and narratives linked to their daily lives. Storybook visualizations made it easier for students to envision the connection between classroom material and real-life experiences. Additionally, content containing Dayak Deah local wisdom values, such as mutual cooperation, reverence for nature, and solidarity, encouraged students not only to learn cognitively but also to internalize these values in their real lives. Learning became more engaging because social studies material was presented through stories and local cultural illustrations close to them.

Positive impacts were also experienced by teachers. Through this activity, teachers gained direct experience in utilizing digital media as part of the instructional process, an endeavor previously considered quite challenging. The resulting digital storybook products can be utilized not only for current lessons but can also be reused for subsequent sessions. Furthermore, teachers became more confident in integrating technology with local wisdom, ensuring that social studies learning is not only academically relevant but also culturally meaningful.

The trial results indicated that digital storybooks based on local wisdom can be used as social studies teaching materials that help connect learning content with students' social and cultural realities. On one hand, this media enhances students' comprehension of social studies material; on the other hand, it plays a role in building cultural awareness and environmental concerns rooted in Dayak Deah traditional values. This finding aligns with the Contextual Teaching and Learning (CTL) approach, which emphasizes the importance

of associating learning content with the reality of students' lives. Furthermore, these results are also consistent with Vygotsky's sociocultural theory, which highlights that meaningful learning occurs through social interaction and relevant cultural contexts.

Accordingly, reflections from this activity affirm that the application of technology in social studies learning should not be viewed merely as a modern innovation, but must be positioned as a means to reinforce local cultural identity. Digital storybooks have proven effective in serving as a bridge between modernity and tradition, ensuring that educational transformation in rural regions remains rooted in the cultural baseline of the community.

CONCLUSION

This community service activity conducted at SMPN 2 Upau through workshop, mentoring, and digital storybook implementation trial stages based on Dayak Deah local wisdom successfully assisted teachers in understanding the process of developing contextual digital teaching materials for social studies learning. This success was evident from the increase in teachers' average scores from 62 points in the pretest to 72 points in the posttest after the training and mentoring activities were carried out. The improvement in teacher understanding was particularly visible in the aspects of operating the *Canva* application, compiling digital storybook content, integrating Dayak Deah local cultural values, and designing the visual layout of social studies teaching materials. The results of the digital storybook classroom implementation trial also indicated positive responses from students, with an average percentage of 87.33%, falling into the very feasible category. The digital storybook helped students comprehend social studies material through visual presentations and narratives linked to the social and cultural life of the Dayak Deah community. Additionally, the use of digital storybooks also helped deliver more engaging, contextual social studies learning that was close to students' lives. Overall, this activity demonstrates that the integration of digital technology and local wisdom can support more meaningful social studies learning while simultaneously helping introduce local cultural values to students. As a follow-up, the development of digital storybooks based on Dayak Deah local wisdom needs to be continuously pursued through product refinement, expanding implementation to other social studies topics, and providing ongoing mentoring for teachers so that the utilization of local culture-based digital teaching materials can be applied more sustainably in instruction.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

- Anwar, M., Hafizianor, H., & Asysyifa, A. (2023). Kearifan lokal masyarakat Dayak Meratus dalam pengelolaan hutan secara tradisional di Desa Atiran. *Jurnal Sylva Scientiae*, 6(1), 115. <https://doi.org/10.20527/jss.v6i1.8204>
- Ardiansyah, S., Komalasari, K., Maryani, E., & Wiyanarti, E. (2024). Transformation of Bima local wisdom values through social studies e-book media. *Journal of Education and Learning (EduLearn)*, 18(2), Article 2. <https://doi.org/10.11591/edulearn.v18i2.21004>
- Benick, G. (2012). 26. Digital storytelling and diasporic identities in higher education. *Collected Essays on Learning and Teaching*, 5, 147–152. <https://doi.org/10.22329/celt.v5i0.3360>
- Chen, T., Luh, D.-B., Hu, L., Liu, J., & Chen, H. (2023). Sustainable Design Strategy of Regional Revitalization Based on AHP–FCE Analysis: A Case Study of Qianfeng in Guangzhou. *Buildings*, 13(10), 2553. <https://doi.org/10.3390/buildings13102553>

- Dakir, D. (2017). Pengelolaan budaya inklusif berbasis nilai Belom Bahadat pada Huma Betang dan transformasi sosial masyarakat Dayak Kalimantan Tengah. *Religio Jurnal Studi Agama-Agama*, 7(1), 28–54. <https://doi.org/10.15642/religio.v7i1.707>
- Khofifah, K., Putri, N. R., Jannah, F., & Astuti, N. Y. (2024). Peran teknologi dalam meningkatkan efektivitas pembelajaran pendidikan islam. *Jurnal Pendidikan Islam Al-Affan*, 4(2), 218–223.
- Nadilla, D. F., Syaharuddin, S., Subiyakto, B., Arisanty, D., Jannah, F., & Mardiani, F. (2024). Powerful social studies learning integrated with Dayak Deah local wisdom at junior high schools in Tabalong. *International Conference on Social Science Education Proceeding*, 2, 248–255. <https://doi.org/10.20527/fffxsx42>
- Nurpratiwi, S., Amaliyah, A., Hakam, A., & Romli, N. A. (2022). Developing teacher professionalism in online learning through assistance of web-based digital teaching materials. *Dimas Jurnal Pemikiran Agama Untuk Pemberdayaan*, 21(2), 221–232. <https://doi.org/10.21580/dms.2021.212.9367>
- Olang, Y., Oktaviani, U. D., & Oktaviani, Y. (2021). Nilai dan unsur budaya pada cerita rakyat Buah Udak suku Dayak Linoh. *Stilistika Jurnal Pendidikan Bahasa Dan Sastra*, 14(2), 210. <https://doi.org/10.30651/st.v14i2.8917>
- Permana, B. S., Hazizah, L. A., & Herlambang, Y. T. (2024). Teknologi pendidikan: Efektivitas penggunaan media pembelajaran berbasis teknologi di era digitalisasi. *Khatulistiwa: Jurnal Pendidikan Dan Sosial Humaniora*, 4(1), 19–28.
- Sahertian, C. I. (2021). Sakralitas Burung Enggang Dalam Teologi Lokal Masyarakat Dayak Kanayatn. *Epigraphe Jurnal Teologi Dan Pelayanan Kristiani*, 5(1), 58–75. <https://doi.org/10.33991/epigraphe.v5i1.202>
- Silalahi, R. M. (2019). Understanding Vygotsky's zone of proximal development for learning. *Polyglot: Jurnal Ilmiah*, 15(2), 169–186.
- Sugiarto, T., Ambiyar, A., Wakhinuddin, W., Purwanto, W., & Saputra, H. D. (2023). Efektivitas penggunaan media pembelajaran berbasis teknologi informasi dan komunikasi terhadap hasil belajar: Metaanalisis. *Edukasi: Jurnal Pendidikan*, 21(1), 128–142.
- Syahrudin, S., Subiyakto, B., Nadilla, D. F., & Jannah, F. (2025). The integration of dayak deah's local wisdom in social studies learning within the merdeka curriculum at junior high schools in Tabalong. *The Innovation of Social Studies Journal*, 6(2), 101–110. <https://doi.org/10.20527/issj.v6i2.14751>
- Tzima, S., Styliaras, G., Bassounas, A., & Tζίμα, M. (2020). Harnessing the potential of storytelling and mobile technology in intangible cultural heritage: a case study in early childhood education in sustainability. *Sustainability*, 12(22), 9416. <https://doi.org/10.3390/su12229416>
- Waritsman, A., Hariyanti, R. A. M., & Japar, J. (2024). Manajemen pelatihan: pengembangan bahan ajar digital menggunakan google sites dan youtube pada materi pembuatan kuis interaktif untuk pembelajaran. *Inovasi-Jurnal Diklat Keagamaan*, 18(1), 1–12. <https://doi.org/10.52048/inovasi.v18i1.482>
- Wilson, D. K., Hutson, S. P., & Wyatt, T. H. (2015). Exploring the role of digital storytelling in pediatric oncology patients' perspectives regarding diagnosis. *Sage Open*, 5(1). <https://doi.org/10.1177/2158244015572099>
- Wirda, W. (2025). Pemanfaatan digital storytelling dalam mengajarkan nilai-nilai sosial budaya pada siswa SD. *Jurnal Ilmiah Multidisiplin Mahasiswa Dan Akademisi*, 1(3), 78–88. <https://doi.org/10.64690/intelektual.v1i3.84>