Assisting Elementary School Teachers in Implementing App-Based Joyful Learning to Enhance Students' English Literacy

Yulmiati Yulmiati[1], Rahmia Tulljannah[2] and Melvina Melvina[3]
[1] *Universitas Adzkia, yulmiati@adzkia.ac.id*
[2] *Universitas Adzkia, rahmiatuljannah@adzkia.ac.id*
[3] *Universitas PGRI Sumatera Barat, melvina.stkippgrisumbar@gmail.com*

2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International License-(CC-BY-SA) (https://creativecommons.org/licenses/by-sa/4.0/)
DOI : http://dx.doi.org/10.30983/dedikasia.v6i2.11689

ARTICLE INFO

Submit : *06 Okt 2026*
Revised : *16 Nov 2026*
Accepted : *24 Nov 2026*

Keywords:
Joyful English Learning; elementary school teachers; interactive application; teacher competence; English literacy

ABSTRACT

This community service program aimed to strengthen the capacity of elementary school teachers to implement app-based Joyful English Learning to support students' English literacy. The program addressed the need to enhance teachers' knowledge, pedagogical skills, and self-efficacy in applying interactive, technology-supported English teaching strategies for young learners. The activities involved 39 elementary school teachers from the Cluster III Teacher Working Group (KKG) in Padang Timur District of Padang City. The program was implemented through several stages, including preliminary needs identification, training and workshops, hands-on practice in using interactive learning applications, mentoring in implementing Joyful English Learning strategies, and evaluation through pre-tests and post-tests. The results indicated an improvement in teachers' overall competencies, with the mean score increasing from 3.71 (74.14%) in the pre-test to 4.27 (85.41%) in the post-test. These findings demonstrate that the community service program contributed to improving teachers' knowledge, pedagogical competencies, and confidence in implementing app-based Joyful English Learning. Continued mentoring and direct assessment of students' English literacy are recommended to ensure the sustainability and effectiveness of the program.

International License-(CC-BY-SA)
(https://creativecommons.org/licenses/by-sa/4.0/)
http://dx.doi.org/10.30983/dedikasia.v6i2.11689

This is an open access article under the CC–BY-SA license

Introduction

Teachers are a fundamental component of education and play a crucial role in determining the quality of teaching and learning processes and outcomes in elementary schools (Ulfah, Suprapti, & Amzer, 2025). In the context of English language learning, teachers' competencies are key factors in fostering students' foundational literacy from an early age (Yulmiati, Melvina & Putri, 2025). However, the situation in KKG Cluster III, in Padang Timur District of Padang City, indicates that English language instruction is still predominantly characterized by conventional teaching methods, such as vocabulary memorization, translation, and one-way lecturing. These approaches have resulted in less interactive and less contextualized learning experiences and have not effectively promoted students' active engagement in the learning process.

Although some schools are equipped with supporting facilities, such as laptops, projectors, teachers' personal devices, and internet access, the utilization of these resources in English language teaching remains limited. This is primarily due to teachers' insufficient competencies in integrating

technology into the instructional process. Consequently, the potential of available digital media has not been fully harnessed to create more engaging and meaningful learning experiences.

Of the 39 English teachers from nine elementary schools affiliated with KKG Cluster III in Padang Timur District of Padang City, only seven (16%) have an academic background in English Language Education, while the remaining 32 (84%) come from non-English educational backgrounds. This competency gap has contributed to the limited variety of teaching methods employed in the classroom. As a result, students continue to experience difficulties in understanding basic vocabulary and simple instructions, and they often lack confidence in using English for basic everyday communication.

In English language classrooms, particularly at the elementary level, learning activities need to consider the characteristics of young learners. Children generally require learning experiences that are engaging, interactive, contextual, and varied. Creating an exciting English classroom can stimulate learners' motivation and enthusiasm and provide opportunities for them to participate more actively in language learning (Sulistianah et al., 2025). Effective elementary English teaching therefore requires teachers to select instructional strategies and learning resources that can make language learning meaningful and enjoyable while maintaining clear learning objectives.

One approach that can address this need is Joyful English Learning, which emphasizes enjoyable, active, and student-centered learning through games, songs, storytelling, visual materials, interaction, and contextual activities. Such activities can create a positive classroom atmosphere and provide young learners with opportunities to participate actively in English learning. Interactive learning media can further support this process because they allow teachers to present language materials through visual, audio, and interactive features. Ali et al. (2024) emphasize the importance of interactive learning media in elementary education because such media can support more engaging and varied learning experiences.

The integration of technology is particularly relevant to English vocabulary development. Teachers' digital competence influences their ability to select and use appropriate technological resources to maximize students' learning opportunities. Kinasih and Wijayanti (2024) highlight the urgency of teachers' digital technology competence in supporting the optimization of students' English vocabulary learning in elementary schools. Therefore, technology integration should not be understood merely as the use of digital devices or applications but as the ability of teachers to select, adapt, and utilize technology according to learning objectives, content, student characteristics, and classroom conditions.

The development of teachers' competence in using innovative learning media has consequently become an important aspect of contemporary teacher professional development (Yulmiati et al., 2024). Recent initiatives have demonstrated the importance of strengthening teachers' ability to utilize adaptive and technology-based learning media, including augmented-reality-supported applications, as part of educational innovation in the industry 5.0 era (Misbahudholam et al., 2025). Similarly, the design of appropriate resources involving teachers, students, equipment, and learning media is important for implementing innovative language learning at the elementary level (Zahra Dila Intania et al., 2025). These findings suggest that technology-based innovation requires systematic preparation of both teachers and learning resources.

At the same time, digital innovation in English language teaching should remain pedagogically grounded. The rapid emergence of artificial intelligence and other digital technologies has expanded the range of tools available to English teachers, but it has also created new challenges concerning teachers' pedagogical decision-making. Al-khresheh (2024), for example, reports that English teachers perceive both pedagogical benefits and challenges in integrating ChatGPT into English language teaching. This indicates that technology should not replace teachers' pedagogical roles; rather, teachers need to determine how digital tools can be appropriately integrated into instructional purposes. At the

elementary level, this consideration is particularly important because young learners require teacher guidance, interaction, and developmentally appropriate learning experiences.

Research on effective English teaching at the elementary level also emphasizes the importance of teachers' instructional decisions and classroom practices. Imran et al. (2024) found that effective elementary English teaching involves multiple pedagogical dimensions, including appropriate teaching strategies, classroom interaction, learner engagement, and sensitivity to students' learning needs. Consequently, technology-supported English instruction should be designed around learners and learning objectives rather than around the technological features of an application alone.

Although previous studies have discussed the importance of digital competence, interactive learning media, enjoyable English classrooms, and technology-supported English teaching, there remains a need for practical programs that translate these principles into teachers' classroom practices, particularly in elementary school contexts. Teachers may have access to digital facilities but still require guidance in selecting appropriate applications, designing technology-integrated activities, managing classroom interaction, and connecting digital resources with English learning objectives (Heslini & Yulmiati, 2026). The challenge is therefore not simply whether technology is available, but whether teachers are sufficiently prepared to use it pedagogically and creatively.

In addition, English language education can contribute to broader educational sustainability when teachers are equipped to integrate meaningful and contextually appropriate learning practices. Arslan and Curle (2024) demonstrate that English language teaching can be connected with education for sustainable development, emphasizing the potential for English teachers to contribute to broader educational goals. In this context, strengthening teachers' capacity to use accessible and adaptable digital resources can support sustainable professional practices that can be shared and developed through teacher communities.

The present community service program responds to this need by assisting elementary school teachers in implementing app-based Joyful English Learning through the Studycat application. The program is designed not merely to introduce teachers to an educational application but to strengthen their capacity to integrate interactive technology with learning objectives, English language content, classroom activities, and assessment. The program combines training, hands-on practice, collaborative development of learning modules, peer teaching, classroom implementation, mentoring, and reflection. Through this approach, teachers are expected to move from technological familiarity toward the practical ability to design and implement enjoyable, interactive, and student-centered English lessons.

The program is implemented with the Cluster III Teacher Working Group (KKG) in Padang Timur District of Padang City. It focuses on strengthening teachers' pedagogical and digital competencies and supporting the development of technology-integrated English learning practices that are appropriate for elementary school students. The program also seeks to develop sustainable instructional resources and best practices that can be disseminated through the KKG.

The program was implemented through five interconnected stages: socialization, training, technology implementation, mentoring and evaluation, and program sustainability planning. During the socialization stage, the team introduced the concept of app-based Joyful English Learning, identified teachers' needs through discussions and interviews, and agreed on the activity schedule and responsibilities. The training stage focused on improving teachers' competencies through interactive workshops and hands-on practice in applying enjoyable, technology-supported English teaching strategies. During the technology implementation stage, teachers practiced using the Studycat application and integrating it into structured English lesson plans, resulting in the development of an application-based English teaching module. The mentoring and evaluation stage involved classroom assistance, constructive feedback, classroom observations, pre- and post-assessments of teacher reflections to identify challenges and improve teaching practices. Finally, the sustainability stage encouraged teachers to independently continue using the module and interactive application and to develop engaging learning activities based on their students' needs.

Based on this background, the present community service program addresses the following research question: How does assistance in implementing app-based Joyful English Learning support elementary school teachers in improving the quality of English instruction and enhancing students' English literacy?

Accordingly, this program aims to assist elementary school teachers in implementing app-based Joyful English Learning and to examine its contribution to improving English instruction. Specifically, the program seeks to (1) strengthen teachers' pedagogical and digital competencies; (2) develop teachers' ability to design interactive, technology-supported English learning activities; (3) provide teachers with practical experience through peer teaching and classroom implementation; and (4) establish sustainable technology-integrated English teaching practices through the Teacher Working Group (KKG).

Methods

The implementation method for this Community Service (PkM) activity is designed to be phased, participatory, and collaborative, ensuring that the solutions provided align with the partners' needs and can be implemented sustainably within the elementary school environment. Teachers and the school serve as the primary subjects throughout the entire process, from planning and implementation to evaluation. Broadly speaking, the activity comprises five key stages: dissemination, training, technology implementation, mentoring and evaluation, and program sustainability.

Activity Implementation Stages

1. Socialization. This stage aims to establish a shared understanding between the community service team and the partners regarding the program's objectives, benefits, and scope. Activities are conducted through formal meetings with the school principal and teachers, followed by focus group discussions and interviews to identify actual needs in the field. An initial assessment of the English language learning environment in the elementary school is also conducted at this stage, including the challenges teachers face in implementing technology-based instruction. Furthermore, the activity schedule, role allocation, and a mutual commitment to the program's success are agreed upon.

2. Training. Training focuses on enhancing teachers' competence in implementing technology-based "Joyful English Learning." Activities take the form of interactive workshops covering the conceptual understanding of enjoyable learning, practical teaching strategies using educational games, songs, and visual media, as well as simulations of app-based instruction. Teachers are also trained to integrate student-centered learning approaches into classroom activities. Additionally, reflection sessions and discussions on teaching experiences are provided to reinforce understanding and boost teachers' confidence in implementing these instructional innovations.

3. Technology Implementation. The technology utilized in this program is the Studycat application—an existing, licensed platform used without technical modification. The primary innovation lies in the development of a Studycat-based English Teaching Module that integrates the app's features with learning objectives, classroom activities, and assessments. This module is produced in both print and digital (PDF) formats to ensure easy access for teachers and students in grades 4 through 6. The learning focus encompasses basic vocabulary mastery, listening skills, and pronunciation, utilizing "Joyful Learning" and student-centered learning approaches. The module comprises lesson details, learning outcomes and objectives, instructional materials, a mapping of Studycat features, instructional steps, app-based activities, student worksheets (*LKPD*), assessments, grading rubrics, reflection sections, technical guidelines for app usage, and supporting appendices.

4. Mentoring and Evaluation. At this stage, the community service team provides direct mentoring to teachers during the classroom implementation process. The mentoring aims to assist teachers in overcoming technical and pedagogical obstacles while providing continuous feedback. Evaluation is conducted through the observation of the learning process, initial and final assessments of students'

English literacy skills, and teacher reflection on their teaching experiences. The evaluation results serve as a basis for refining instructional strategies and enhancing the effectiveness of the program's implementation.

5. Sustainability. The program's sustainability aims to enable teachers to independently implement module- and application-based instruction after the program concludes. Teachers are encouraged to develop learning activities tailored to student needs and to utilize the modules as long-term learning resources. Consequently, the resulting innovations do not cease with the completion of the community service activities but continue to evolve within the school environment.

Results

The program resulted in several tangible outputs that demonstrate the teachers' increased capacity to implement app-based Joyful English Learning. These outputs included an application-based English teaching module using Studycat, structured teaching materials and lesson plans, and interactive learning activities incorporating songs, games, and storytelling. In addition, teachers gained practical experience in integrating digital applications into classroom instruction and implementing more engaging, student-centered English learning practices. The mentoring activities also encouraged teachers to adapt learning materials and activities to students' needs and learning abilities. These outputs indicate that the program not only improved teachers' knowledge, pedagogical skills, and self-efficacy but also supported the development of practical teaching resources and classroom practices that can be independently implemented and sustained in partner schools.

The first aspect of the activity focuses on enhancing teachers' competence in understanding and implementing "Joyful English Learning", utilizing interactive applications within primary school English instruction. This focus stems from an initial assessment of the partner schools, which revealed that teachers required further support in designing lessons that are engaging, enjoyable, interactive, and suited to the characteristics of primary school students. Although the schools possessed laptops, projectors, mobile devices, and internet access, these resources were underutilized for English instruction; teaching methods remained largely conventional, relying on lectures, translation, and rote vocabulary memorization.

The program was implemented through a combination of training sessions, hands-on practice, peer teaching, and ongoing mentoring. Teachers first gained an understanding of the Joyful English Learning concept, the characteristics of primary school students, and the importance of active, contextual, communicative, and enjoyable learning. Subsequently, they were introduced to the **Studycat** application as an interactive learning tool, exploring features and activities related to vocabulary, listening, pronunciation, educational games, and audiovisual content.

Teachers were then trained to integrate the application with learning objectives, course materials, student activities, and assessment methods. The program also involved developing supplementary activities—such as games, songs, storytelling, language exercises, and simple communicative tasks. Through peer teaching sessions, teachers practiced their lesson plans before implementing them in actual classrooms.

The implementation of these activities resulted in improved teacher understanding, skills, and readiness regarding technology use. Teachers not only became familiar with Studycat but also gained the ability to utilize it effectively to support Joyful English Learning. Key outcomes included: (1) a better grasp of the Joyful English Learning concept; (2) improved ability to access and explore Studycat; (3) the ability to select activities appropriate for the lesson material; (4) the ability to integrate the application with objectives, materials, activities, and assessments; (5) a wider variety of activities, including games, songs, storytelling, and communicative tasks; (6) enhanced practical experience through peer teaching; and (7) greater readiness to implement and adapt technology based on student needs and available school facilities.

The shift in the partners' situation indicates that teachers' understanding of Joyful English Learning, which was previously inconsistent, has significantly improved. The initial, suboptimal use of the application evolved into a demonstrated ability to understand and utilize Studycat. Teachers also began integrating the application with learning objectives and materials, enriching activities through audiovisual media, games, songs, and storytelling, and putting these methods into practice via peer teaching. Thus, the first phase of the activity was completed, evidenced by the teachers' enhanced knowledge, skills, and readiness.

The activity's outcomes included a deeper understanding of "Joyful English Learning," proficiency in using Studycat, the ability to integrate technology, the creation of app-based lesson plans and interactive "Joyful English Learning" modules, the implementation of peer teaching, and the establishment of best practices for digital technology use within the Cluster III Teacher Working Group (KKG) in Padang Timur District of Padang City.

Sustainability is ensured by encouraging teachers to apply this knowledge and these skills in their respective schools. The modules and lesson plans serve as guides, while Studycat is utilized as a supporting tool aligned with learning objectives. Best practices can also be shared through the KKG, ensuring that competency improvements extend beyond the training participants to become a shared practice. Consequently, this activity lays the foundation for English language instruction that is more creative, interactive, and enjoyable, while remaining well-suited to the characteristics of elementary school students.

The second activity focused on enhancing teachers' abilities to design "Joyful English Learning" instructional materials based on interactive applications and to implement them through peer teaching. This phase followed the teachers' initial acquisition of knowledge regarding the Joyful English Learning concept and the use of digital educational technology. Through this activity, teachers were guided not merely to familiarize themselves with the technology but to integrate it into lessons tailored to the needs and characteristics of elementary school students.

The activity comprised two main components: the collaborative design of Joyful English Learning modules utilizing interactive applications and the practice of peer teaching. During the module design phase, teachers worked in groups to develop lessons that integrated the Joyful English Learning approach with the Studycat application. They were guided to consider learning objectives, student characteristics, English language content, learning activities, application usage, and evaluation methods.

The activity proceeded to peer teaching, where teachers practiced instruction based on their prepared designs. A "model teacher" demonstrated the use of Studycat and Joyful English Learning activities, while other teachers assumed the roles of students and observers. Following the practice session, teachers received feedback from fellow participants and the community service team to identify strengths and areas for improvement.

The results demonstrated improvements in planning, implementation, and reflective competencies. Teachers successfully developed lesson plans that accounted for objectives, content, activities, technology, and assessment. They also gained hands-on experience in lesson delivery through peer teaching and developed the ability to reflect on their practice based on feedback.

Activity outputs included the development of Studycat-based Joyful English Learning modules and interactive lesson plans, the execution of peer teaching sessions, enhanced skills in integrating applications into instruction, and the establishment of best practices applicable in the teachers' respective schools.

Thus, the second activity was completed, marked by a shift in teacher capability from merely understanding the technology to being able to design, implement, evaluate, and refine technology-based instruction. The resulting modules can be adapted to meet student needs and school facilities,

while the peer teaching experience can be disseminated through Teacher Working Groups (KKG) as a best practice to ensure the program's sustainability.

The third aspect of the activity focuses on implementing "Joyful English Learning"—using the interactive Studycat app—within primary school English lessons. This stage involves applying the knowledge and skills teachers acquired during previous activities. Teachers move beyond merely understanding the concepts and technology to actively using them in real classroom settings, taking into account the specific characteristics and needs of primary school students.

Implementation follows a pre-designed lesson plan. Teachers prepare objectives, materials, supporting tools, and the Studycat app, then select relevant activities such as learning games, vocabulary and pronunciation exercises, and audio-visual tasks. Teachers provide instructions before the activity, conduct the interactive lesson, and reinforce the material through games, songs, storytelling, and simple exercises. At the end of the session, teachers reflect on and evaluate student responses and engagement.

The results also demonstrate that teachers have gained hands-on experience in applying educational technology. They are able to incorporate Studycat into their lessons, integrate it with the "Joyful English Learning" approach, and create more varied, interactive activities. Students gain more opportunities to listen, observe, mimic, respond, play, and practice using English.

This phase is marked by a shift from previously suboptimal technology use to a more focused application of Studycat. Teachers take on the role of facilitators and activity guides, while students have greater opportunities to participate. Teachers also gain experience in time management, giving instructions, selecting activities, and adapting technology to classroom conditions.

The impact of the activity is evident in the teachers' enhanced capacity to select digital media, use Studycat, design enjoyable activities, combine technology with games, songs, and storytelling, and conduct lesson reflections. For students, the implementation provides a more engaging learning experience that fosters participation, facilitates vocabulary and pronunciation practice, and supports the gradual development of English literacy.

Activity outputs include the successful implementation of Studycat-based "Joyful English Learning," technology-integrated teaching practices, improved teacher skills, interactive learning activities, and a foundation for the continued use of the app at partner schools. Sustainability is ensured through continued application in schools and the sharing of best practices via Teacher Working Groups (KKG).



Figure 1. Training and Workshops



Figure 2. Hands-on Practice in Using Interactive Learning Applications



Figure 3. Mentoring in Implementing Joyful English Learning Strategies through Studycat

The effectiveness of the *Joyful English Learning* assistance program was evaluated by comparing teachers' responses before and after the training and mentoring activities. The analysis focused on four dimensions: Knowledge of Joyful Learning, Pedagogical Skills, Teaching Self-Efficacy, and Training Needs. The questionnaire consisted of 47 items distributed across the four dimensions. The results are presented in Table 1.

Table 1. Comparison of Pre-test and Post-test Results

Indicator	Items	Pre-test Mean	Pre-test (%)	Post-test Mean	Post-test (%)	Gain	N-Gain	Category
Knowledge	10	3.39	67.85	4.26	85.28	+0.87	0.54	Moderate
Pedagogical Skills	13	3.52	70.35	4.26	85.25	+0.75	0.50	Moderate
Teaching Self-Efficacy	12	3.39	67.83	4.27	85.30	+0.87	0.54	Moderate
Training Needs	12	4.49	89.79	4.29	85.81	-0.20	—	Decreased
Overall	47	3.71	74.14	4.27	85.41	+0.56	0.44	Moderate

The results demonstrate an overall positive change following the implementation of the program. The overall mean score increased from 3.71 (74.14%) in the pre-test to 4.27 (85.41%) in the post-test, representing an increase of 0.56 points or 11.27 percentage points. The overall N-Gain score of 0.44 indicates a moderate level of improvement.

The largest improvements were observed in Knowledge and Teaching Self-Efficacy, both of which increased by approximately 0.87 points. Knowledge increased from 3.39 to 4.26, while Teaching Self-Efficacy increased from 3.39 to 4.27. Pedagogical Skills also increased from 3.52 to 4.26, with a gain of 0.75. The N-Gain values for Knowledge (0.54), Pedagogical Skills (0.50), and Teaching Self-Efficacy (0.54) were all within the moderate category.

The inferential analysis further supported these descriptive findings. The differences between pre-test and post-test scores were statistically significant for Knowledge ($t = -4.85$, $p < .001$, Cohen's $d = 1.09$), Pedagogical Skills ($t = -4.14$, $p < .001$, Cohen's $d = 0.93$), and Teaching Self-Efficacy ($t = -4.50$, $p < .001$, Cohen's $d = 1.01$). All three dimensions therefore demonstrated statistically significant differences with large effect sizes. In contrast, Training Needs showed no statistically significant difference ($t = 1.48$, $p = .144$, Cohen's $d = -0.33$).

At the item level, several areas showed particularly substantial improvement. Knowledge of storytelling increased from 2.80 to 4.18 (+1.38), while the ability to develop a Joyful Learning-based lesson plan increased from 2.95 to 4.31 (+1.36). Teachers' ability to use storytelling to teach English increased from 2.95 to 4.26 (+1.31). Similarly, confidence in using English while teaching increased from 2.98 to 4.26 (+1.28), and the ability to use games in English instruction increased from 3.03 to 4.28 (+1.26).

The findings also demonstrate that the impact of the program was not limited to one aspect of teacher development. Knowledge increased, indicating stronger conceptual understanding; Pedagogical Skills increased, indicating greater perceived ability to implement the approach; and Teaching Self-Efficacy increased, indicating greater confidence in applying the approach. This three-dimensional improvement is particularly relevant to the objective of the PkM program because sustainable classroom implementation requires teachers to understand an approach, know how to apply it, and feel confident enough to use it.

Discussion

The program brought positive changes to partner schools' English teaching practices. Before the program, teachers mainly used conventional methods, with limited integration of interactive applications and technology. After the program, teachers demonstrated improved knowledge, pedagogical skills, and teaching confidence, as reflected in the mean score increase from 3.71 (74.14%) to 4.27 (85.41%), with an N-Gain of 0.44 (moderate category). Tangible outputs included a Studycat-based English teaching module, structured lesson plans, and interactive activities using songs, games, and storytelling. These outcomes encouraged more engaging, student-centered, and sustainable English learning practices.

The findings of this community service program indicate that the integration of interactive digital technology, particularly the Studycat application, can strengthen teachers' capacity to implement Joyful English Learning in primary school contexts. Importantly, the improvement observed in this program was not limited to teachers' technical familiarity with the application but extended to their pedagogical ability to select, adapt, and integrate digital activities into learning objectives, materials, classroom activities, and assessment. This finding supports the view that effective technology integration requires teachers to develop interconnected technological, pedagogical, and content knowledge rather than merely acquire technical skills (Paidican & Arredondo, 2022; Wohlfart & Wagner, 2023).

The activity demonstrated a shift in teachers' understanding from conventional English teaching practices toward more interactive and enjoyable learning. Before the program, English instruction was characterized mainly by lectures, translation, and vocabulary memorization, despite the availability of laptops, projectors, mobile devices, and internet connectivity. This condition indicates that access to technology does not automatically result in effective technology integration. Previous research has similarly shown that teachers' confidence, self-efficacy, and professional

knowledge influence how digital technologies are implemented in primary school contexts (Stringer et al., 2022).

In the present program, Studycat was introduced not simply as a technological product but as a supporting tool that could be connected with vocabulary, pronunciation, listening, games, songs, storytelling, and simple communicative activities. This approach is consistent with research suggesting that teachers' technology integration is more meaningful when digital resources are incorporated into lesson planning and instructional purposes. König et al. (2024), for example, found that ICT integration in lesson plans constitutes an important dimension of teachers' professional competence and should be examined in relation to instructional planning rather than technology use alone.

The finding is particularly relevant to primary school English instruction because young learners require learning experiences that provide variety, interaction, repetition, and meaningful exposure to language. The use of audiovisual materials and interactive activities can provide additional opportunities for learners to encounter language through multiple modes. However, the present findings also suggest that the pedagogical value of technology depends substantially on teachers' ability to integrate it with appropriate classroom activities. Thus, the use of Studycat should be understood as part of a broader instructional strategy rather than as an independent intervention.

The training approach also appears to have contributed to this change. The program combined conceptual training, hands-on practice, peer teaching, and mentoring. Such a combination enabled teachers to move from understanding the concept of Joyful English Learning to experiencing and practicing it. This is consistent with Hennessy et al. (2022), who found that technology-supported teacher professional development in low- and middle-income countries can be strengthened through contextualized support, coaching, peer learning, and subject-specific technological resources. Importantly, their review also emphasizes that human interaction and expert facilitation remain central to effective technology-mediated professional development.

In addition, this finding is consistent with research on informal teacher learning. Huang et al.(2022), based on data from 1,881 K–12 teachers, found that learning through reflection, media, student interaction, and colleague interaction was associated with teachers' technology integration in different ways. In particular, colleague interaction contributed to technology integration through teachers' perceived usefulness of technology, while student interaction was associated with technology integration through perceived usefulness and self-efficacy.

This shift is important because digital technology can support a move away from teacher-dominated instruction toward more active forms of learning. However, technology alone does not automatically produce learner-centered instruction. Teachers remain central in determining how digital activities are sequenced, explained, monitored, and connected to learning objectives. Wohlfart and Wagner (2023), based on an umbrella review of 23 systematic reviews involving 1,062 primary studies, emphasize the central role of teachers in educational digitalization and identify TPACK and digital literacy as important dimensions of technology integration.

In the present program, Studycat created opportunities for students to engage with vocabulary and pronunciation through interactive activities. Nevertheless, these digital experiences were embedded within teacher-guided activities, including songs, storytelling, games, and communicative exercises. This suggests that the value of the application was not derived from the digital tool alone but from the way teachers integrated it into a broader pedagogical sequence.

Huang et al. (2022) provide empirical support for this interpretation by demonstrating that different forms of informal teacher learning are associated with teachers' intentions to integrate technology. Their findings indicate that colleague interaction, student interaction, media learning, and reflection can contribute to technology integration through different mechanisms. Similarly, Hennessy et al. (2022) emphasize that technology-mediated professional development should retain interpersonal and collaborative dimensions rather than relying exclusively on digital delivery.

The present program therefore suggests that peer teaching and KKG-based collaboration can function as mechanisms for sustaining teachers' technology integration. Teachers can exchange lesson plans, demonstrate successful activities, discuss classroom challenges, and collectively identify

alternative strategies. Such practices are particularly relevant in contexts where formal professional development opportunities may be limited or episodic.

The involvement of the Teacher Working Group (KKG) provides an additional foundation for sustainability. The outputs of the program were not limited to individual teachers but included lesson plans, interactive modules, peer-teaching experiences, and shared best practices. Through the KKG, these resources can be disseminated among participating teachers and potentially extended to other teachers within the cluster.

However, sustainability should not depend exclusively on the continued use of Studycat. A more sustainable outcome is the development of teachers' capacity to make pedagogically informed decisions about digital and non-digital resources. This is particularly important because technological conditions can change and access to devices or internet connectivity may vary across schools. Therefore, Studycat should be positioned as one of several possible resources within teachers' broader digital-pedagogical repertoire.

Conclusion

This community service activity was carried out according to the planned stages, comprising technology introduction, training, instructional design, peer teaching, implementation, and evaluation. Integrating the Studycat application with the "Joyful English Learning" approach enhanced teachers' capacity to utilize technology, design interactive lessons, and develop activities such as games, songs, storytelling, and exercises focused on vocabulary, pronunciation, and listening. Teachers also produced technology-based modules and lesson plans while gaining practical experience through peer teaching. The activity yielded tangible outputs, specifically the use of the Studycat application, and intangible outputs, including modules, instructional materials, enhanced teacher competencies, and established best practices. The program also indirectly benefited students by providing English lessons that were more varied, interactive, and enjoyable. Sustainability is supported by the continued use of the products, dissemination through Teacher Working Groups (KKG) and publication channels, and the strengthening of teachers' roles as drivers of innovation.

Acknowledgments

The authors would like to express their sincere gratitude to the Directorate of Research and Community Engagement Ministry of Higher Education, Science, and Technology of the Republic of Indonesia (*Direktorat Penelitian dan Pengabdian Kepada Masyarakat Kementerian Pendidikan Tinggi, Sains, dan Teknologi*) for providing financial support for the implementation of this community service program.

Bibliography

Ali, A., Maniboey, L. C., Megawati, R., Djarwo, C. F., & Listiani, H. (2024). *Media pembelajaran interaktif: Teori komprehensif dan pengembangan media pembelajaran interaktif di sekolah dasar*. PT.

Al-khresheh, M. H. (2024). Bridging technology and pedagogy from a global lens: Teachers' perspectives on integrating ChatGPT in English language teaching. *Computers and Education: Artificial Intelligence*, *6*(March), 100218. https://doi.org/10.1016/j.caeai.2024.100218

Arslan, S., & Curle, S. (2024). Institutionalising English as a foreign language teachers for global sustainability: Perceptions of education for sustainable development in Turkey. *International Journal of Educational Research*, *125*(September 2023), 102353. https://doi.org/10.1016/j.ijer.2024.102353

Hennessy, S., D'Angelo, S., McIntyre, N., Koomar, S., Kreimeia, A., Cao, L., Brugha, M., & Zubairi, A. (2022). Technology Use for Teacher Professional Development in Low- and Middle-Income Countries: A systematic review. *Computers and Education Open*, *3*(December 2021), 100080. https://doi.org/10.1016/j.caeo.2022.100080

Heslini, M., & Yulmiati, Y. (2026). Penerapan Game-Based Learning untuk Meningkatkan Hasil Belajar Ilmu Pengetahuan Alam dan Sosial Siswa Kelas IV Sekolah Dasar Swasta Anwar Karim

Imran, M., Almusharraf, N., Sayed Abdellatif, M., & Ghaffar, A. (2024). Teachers' perspectives on effective English language teaching practices at the elementary level: A phenomenological study. *Heliyon*, *10*(8), e29175. https://doi.org/10.1016/j.heliyon.2024.e29175

Kinasih, W. S., & Wijayanti, M. D. (2024). Urgensi Kompetensi PenguasaanTeknologi Digital Guru Sebagai Upaya Pemaksimalan Kosakata Siswa Dalam Pembelajaran Bahasa Inggris di Sekolah Dasar. *Social, Humanities, and Educational Studies (SHES): Conference Series*, *7*(3), 1946–1954. https://doi.org/10.20961/shes.v7i3.92350

König, J., Heine, S., Jäger-Biela, D., & Rothland, M. (2024). ICT integration in teachers' lesson plans: A scoping review of empirical studies. *European Journal of Teacher Education*, *47*(4), 821–849. https://doi.org/10.1080/02619768.2022.2138323

Melvina & Yulmiati (2026). The Characteristics of Young Learners. In Y. Hasnah & M. Arifin (Eds.), *English for Young Learners Creative Approaches to Early Language Education* (pp. 13-24). Medan, Indonesia: UMSU Press.

Misbahudholam, M. A., Armadi, A., Puji Astuti, Y., & Astutik, C. (2025). Inovasi Abad 21: Penguatan Komeptensi Guru Dalam Pemanfaatan Media Pembelajaran Adaptif Berbasis Augmented Reality Dengan Bantuan Aplikasi Asemblr Edu Di Era Industri 5.0. *Jurnal Medika: Medika*, *4*(3), 612–626. https://jmedika.com/index.php/medika/article/view/271

Paidican, M. A., & Arredondo, P. A. (2022). The Technological-Pedagogical Knowledge for In-Service Teachers in Primary Education: A Systematic Literature Review. *Contemporary Educational Technology*, *14*(3), 1–15. https://doi.org/10.30935/cedtech/11813

Stringer, L. R., Lee, K. M., Sturm, S., & Giacaman, N. (2022). A systematic review of primary school teachers' experiences with digital technologies curricula. *Education and Information Technologies*, *27*(9), 12585–12607. https://doi.org/10.1007/s10639-022-11127-z

Sulistianah, Humairah, S. F. F., Nurhasanah, F., Kurniasih, S., & Hidayani, S. (2025). Creating an Exciting English Classroom for Young Learners To Boost Their Learning Spirit. *Algebra : Jurnal Pendidikan, Sosial Dan Sains*, *5*(2), 138–145. https://doi.org/10.58432/algebra.v5i2.1320

Ulfah, I. F., Suprapti, W., & Amzer, Q. (2025). Peran Dan Fungsi Guru Sekolah Dasar Sebagai Agen Perubahan Dalam Konteks Pendidikan Modern. *Eduaksara: Jurnal Kajian Pembelajaran Dasar*, *1*(1), 1-15.

Wohlfart, O., & Wagner, I. (2023). Teachers' role in digitalizing education: an umbrella review. *Educational Technology Research and Development*, *71*(2), 339–365. https://doi.org/10.1007/s11423-022-10166-0

Xianhan, H., Chun, L., Mingyao, S., & Caixia, S. (2022). Associations of different types of informal teacher learning with teachers' technology integration intention. *Computers and Education*, *190*, 1–35. https://doi.org/10.1016/j.compedu.2022.104604

Yulmiati, Melvina, Autila, R., & Yelfiza. (2024). Pendampingan Pembuatan Modul Ajar Berbasis KurikulumMerdeka Untuk Paud. *Jurnal Dedikasia : Jurnal Pengabdian Masyarakat*, *4*(1), 38–47.

Yulmiati, Y., Melvina, M., & Putri, D. (2025). Z Generation Beliefs And Practices on Early English Language Development for Their Children. *Tell-Us Journal*, *11*(4), 1191-1201. http://dx.doi.org/10.22202/tus.2025.v11i4.9748

Zahra Dila Intania, Yaohan Firdaus, Prameswari Ardhani, Afitri Diah Utami, Ritanur Aliya Wulandari, Yassirli Amriya, Lubnaya Dhia Amalia, & Arif Widagdo. (2025). Perancangan Sumber Daya (Guru, Siswa, Perlengakapan) Untuk Pengajaran Dan Pembelajaran Bilingual. *Jurnal Pengabdian Masyarakat Dan Riset Pendidikan*, *3*(4), 3252–3258. https://doi.org/10.31004/jerkin.v3i4.1042