

TRAINING BASED ON SNACK VIDEOS FOR EDUCATIONAL CONTENT TO SUPPORT THE PROFESSIONALISM OF TEACHERS AT AL LUKMANUL HAKIM 2 YOGYAKARTA INTEGRATED ISLAMIC ELEMENTARY SCHOOL

Elyas Djufri^{1*}, Rochmad Novian Inderanata¹, Ahmad Syauqi Hidayatullah¹, Ika Kartika²

¹Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia

²Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia

*elyas.djufri@ustjogja.ac.id

Abstrak: Integrasi teknologi dalam proses pendidikan dapat secara aktif mendorong keterlibatan siswa dalam belajar. Namun, guru masih menghadapi tantangan dalam mengembangkan media pembelajaran yang berbasis teknologi. Pengabdian ini bertujuan untuk meningkatkan profesionalisme guru Sekolah Dasar melalui pelatihan konten pendidikan menggunakan snack video berbasis Ajaran Tamansiswa TRI N (*Niteni, Niroke dan Nambahi*). Pengabdian ini menggunakan metode *Participatory Action Research* yang dilakukan dalam tiga tahapan yaitu perencanaan, pelaksanaan dan evaluasi. Berdasarkan evaluasi melalui angket yang dibagikan kepada guru SD Islam Terpadu Al Lukmanul Hakim 2 Yogyakarta, dari data yang masuk ditemukan 65% sebagian besar guru memiliki keterampilan editing konten kreator pendidikan di platform *Snack Video* yang tergolong cukup baik. Meskipun demikian, tingkat pemahaman guru terhadap materi sosialisasi tergolong baik. Selain itu dari 30 guru diperoleh 80% dari mereka memiliki pemahaman baik, dan 14% memiliki pemahaman sangat baik, sementara hanya 1% yang memiliki pemahaman kurang baik. Dalam hal kepuasan terhadap kegiatan pengabdian, 20% dari para guru menyatakan tidak puas, 60% menyatakan puas, dan 20% menyatakan sangat puas. Meskipun beberapa guru merasa tidak puas, mayoritas merasa puas atau sangat puas dengan kegiatan pengabdian ini. Sebagai kesimpulan, pengabdian ini berhasil meningkatkan keterampilan editing konten pendidikan guru dan memperkuat pemahaman mereka terhadap materi sosialisasi berdasarkan ajaran tamansiswa *Niteni, Niroke dan Nambahi*.

Kata Kunci: Snack Video, Tri N, profesionalisme guru

Abstract: Integrating technology into the education process can actively promote student engagement in learning. However, teachers generally struggle to develop technology-based learning tools. This community service program aims to enhance the professionalism of elementary school teachers through educational content training using snack videos based on the Tamansiswa TRI N teachings. (*Niteni, Niroke dan Nambahi*). This community service activity is carried out in three stages: planning, implementation, and evaluation. Based on the assessment through a questionnaire distributed to teachers at SD Islam Terpadu Al Lukmanul Hakim 2 Yogyakarta, the data collected showed that 65% of many teachers have editing skills for educational content creators on the *Snack Video* platform, which are classified as quite reasonable. Nevertheless, teachers' understanding of the socialisation material is classified as good. Additionally, out of 30 teachers, 80% have good knowledge, 14% have excellent experience, and only 1% have poor knowledge. Regarding satisfaction with the service activities, 20% of the teachers expressed dissatisfaction, 60% expressed satisfaction, and 20% expressed high satisfaction. Although some teachers feel dissatisfied, most are satisfied with this service activity. In conclusion, this service successfully improved teachers' content editing skills and strengthened their understanding of socialisation materials based on the teachings of Tamansiswa: *Niteni, Niroke, and Nambahi*.

Keywords: Snack Video, Tri N, teacher professionalism

Introduction

Education is considered crucial in forming a quality generation in the future. Teachers, as the main actors in the learning dynamic, have a significant responsibility to ensure the efficient

and meaningful receipt of education for students. Teachers not only deliver materials but also become facilitators who support and create opportunities for collaboration among students, enabling effective learning. They assist students in activities independently, fostering a learning environment and emphasising their personal development and creativity (Petkov, 2023).

However, the challenge of maintaining teachers' professionalism and improving the quality of the learning process is still an issue that must be faced, especially in today's digital era. Teachers are faced with the demand to develop themselves and adapt to the times continuously. One of the biggest challenges is adapting to and applying technological changes in the daily teaching process. Teacher professionalism plays an essential role in the context of education, especially in the primary school environment. Various factors have been shown to influence teacher professionalism, including participation in education and training (DIKLAT), experience in teaching, principal management, and pedagogical competence (Hendri et al., 2022). Teacher professionalism involves more than just competence in teaching; it also includes the capacity for innovation and continuous professional development. Integrating Information and Communication Technology (ICT) in education is critical to improving teacher professionalism (Lase et al., 2022). Collaboration between teachers, parents, and other relevant stakeholders plays a vital role in achieving the expected educational outcomes (Nofrika & Suryana, 2022). Thus, teacher professionalism is not limited to teaching skills alone but also includes the capacity to innovate, integrate technology, and cooperate with various related parties. Using video platforms such as Snack Video in the learning process can be considered a strategic step in improving the quality of education.

The conception of education in the digital age emphasises the importance of technology integration to improve learning outcomes. Using digital platforms, software applications, and online resources aims to enrich the delivery of materials and create a more interactive and dynamic learning environment. Technology facilitates student participation while facilitating learning evaluation (Ghaffur, 2017). For example, at the primary school level, platforms such as Snack Video show significant potential in enhancing students' learning experience. It is supported by the results of previous research that the development of information and communication technology (ICT) can create a more exciting and interactive learning atmosphere, which in turn can increase the effectiveness of the teaching and learning process (Aulia et al., 2023). The purpose of using platforms such as *Snack Video* is to facilitate effective communication between educators and learners, especially in periods of disruption, thereby ensuring the continuity of the educational process (Prasetyo et al., 2021). Using digital snack video technology in an academic context is essential in creating a learning environment that is interactive, dynamic, and accommodating to diverse learning styles. In addition, it stimulates collaboration among students and facilitates the development of critical thinking and problem-solving skills (Behkamal et al., 2009). Teachers can use learning videos to expand their teaching methods, enrich students' learning experiences, and hone their skills in designing and implementing practical learning approaches using technology (Udiani & Kristiantari, 2021).

Platforms like *Snack Video* provide a dynamic environment for sharing educational content, spurring engagement, and enriching the learning experience for students of all ages.

Initially better known as an entertainment or social media platform, *Snack Video* is now increasingly recognised for its potential in education. *Snack Video*'s practicality of access and friendly user interface make it an effective tool for educators to disseminate knowledge and engage students through interactive content and create a collaborative learning environment. By utilising the features offered by *Snack Video*, educators could deliver educational materials innovatively, adapting to diverse learning styles and preferences. Furthermore, the platform's popularity and broad reach offer educators a unique opportunity to connect with a larger audience, making the learning process more inclusive and accessible. As the digital landscape continues to evolve, integrating platforms such as *Snack Video* into educational practices can increase the effectiveness of teaching and learning, making education more engaging, interactive, and impactful. Therefore, it is essential to explore the benefits and potential of utilising *Snack Video* in an educational context to maximise the advantages of digital platforms to advance learning outcomes and the overall academic experience.

Ki Hajar Dewantara, an Indonesian educational figure, introduced the concept of "*niteni, niroke, and nambahi*" as a fundamental principle in Tamansiswa teachings. These principles focus on developing students holistically through observation, reflection, and innovation. This approach encourages creativity, independence, and critical thinking skills, which aim to prepare students for various situations in life (Nisa et al., 2019). This philosophy emphasises the importance of active engagement, introspection, and continuous improvement in the learning process (Herawati et al., 2020). In modern learning, "*niteni, niroke, and nambahi*" principles can be integrated with digital technology such as the *Snack Video* platform. Teachers can use *Snack Video* to encourage students to observe (*niteni*) the educational content, contemplate (*niroke*) the meaning of the video, and then modify or add (*nambahi*) to their understanding through a creative process. As such, these principles reinforce interactive and adaptive student learning, aligning with Dewantara's philosophy. Digital platforms allow students to learn more responsively and creatively, developing the skills needed to innovate in an ever-changing environment (Marwany et al., 2023). Table 1 summarises the application of the concepts of *niteni, niroke, and nambahi* in the integration of technology for learning through media such as *snack Videos*.

Table 1. Application of the concepts of *niteni, niroke, and nambahi*

The concept of Tri N	Definition	Application in Learning through Snack Video	Author
<i>Niteni</i>	Observation	Students watch exciting and informative learning videos to understand and relate the material to their daily experiences.	(Damayanti & Rochmiyati, 2019)
<i>Niroke</i>	Imitate Contemplate	Students watch exciting and informative learning videos to understand and relate the material to their daily experiences.	(Lestari & Kusmanto, 2018)
<i>Nambahi</i>	Add Innovation	Students mimic how the material is presented in the video, both in terms of language and interaction, to increase engagement in learning.	(Anafiah & Hangestiningsih, 2019)

Based on Table 1, integrating the principles of Ki Hajar Dewantara into educational practice significantly stimulates learners' creativity. His teachings, particularly the Tri-N

principles, encourage students to explore, question, and innovate, creating a learning environment that fosters curiosity and critical thinking. By implementing these principles, educators can design dynamic and engaging experiences that empower students to become lifelong learners and active participants in their educational journeys. Given the continued relevance of Ki Hajar Dewantara's teachings in modern education, examining the applications of "*niteni, niroke, and nambahl*" can provide valuable insights for developing a holistic approach to education that nurtures creativity, independence, and sustainable growth among students.

Method

This community service activity was conducted on 01 March 2024 at Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School, with 30 teachers participating. The training was implemented using the Participatory Action Research method, which includes three stages: planning, implementation, and evaluation (Gaskins et al., 2023).

The planning stage is the initial stage before the training process is carried out; at the planning stage, initial mapping and problem identification are carried out (Khafsoh & Riani, 2024). Click or tap here to enter text. This stage begins with field observation activities carried out by the head and members of the service team. The observation activities were carried out at Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School, and brief interviews were conducted with teachers and principals related to the problems. The implementation stage focuses on implementing planned actions, which are often iterative and can be adjusted based on continuous participant feedback (Verweij et al., 2023). Table 2 shows the stages of this implementation.

Table 2. Implementation Stage of Training on Educational Content of Snack Video Based on Tri N

Number	Activity Session	Time & Place
1	The first session began with a presentation by the team leader highlighting the importance of becoming a Tri N-based educational content creator. The session covered creating a Snack Video account, editing videos, and uploading content to Snack Video. It concluded with a discussion and a question-and-answer segment.	13.00 Western Indonesian Time Al Lukmanul Hakim 2 Integrated Islamic Elementary School Yogyakarta
2	The second session focused on creativity in snack video content creation. It covered strategies for producing engaging and relevant content. Participants received tips on determining concepts, selecting music, and using practical visual effects in snack videos. They were also encouraged to create and edit short videos with guidance from the instructor.	13.30 Western Indonesian Time Al Lukmanul Hakim 2 Integrated Islamic Elementary School Yogyakarta
3	The third session is a closing and evaluation session that includes gathering feedback and suggestions for improving the quality of the content produced and distributing online questionnaires completed by teachers.	15.00 Western Indonesian Time Questionnaire Online

Evaluation Stage: After the material delivery and discussion, the activity continued with evaluation activities. Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School teachers will get feedback from fellow participants to improve their ability to create video snack content. In addition, the teachers will be given an online questionnaire to evaluate the

improvement of their ability to create snack video content to benefit from using the platform (Roca, 2024). The questionnaire results were then analysed by looking at the average number and percentage of teachers' understanding and satisfaction after the tri-N-based video snack training.

Results and Discussion

This section will describe two things related to the training activities of the Tri N -based Snack Video educational content training at Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Primary School, namely in the form of educational content training processes using the *Snack Video* platform and evaluation of training results using online questionnaires.

Educational content training process using the Snack Video platform

The planning and implementation of this training on creating educational content for teachers on video snacks aims to equip them with a vital mastery of the subject matter. The Tri-N approach encourages teachers to enhance their skills in leveraging technology to support the learning process. Throughout the training, teachers will learn how to create and use short videos as effective teaching aids by following the stages of *niteni*, *niroke*, and *nambahi*

In this training, teachers are invited to understand how to create and utilise short videos as teaching aids through the stages of *niteni*, *niroke*, and *nambahi* (see Figure 1). The *niteni* stage, which means observing, allows teachers to explore different types of existing learning videos (Nugraha et al., 2021). Furthermore, in the *no-stroke* stage, teachers can analyse and assess the video and consider elements that can increase students' learning motivation, as revealed in a study on using learning videos to improve learning motivation (Chairiyah et al., 2023). At the *nambahi* stage, teachers are encouraged to add relevant and engaging content to the videos they create to create a more interactive and enjoyable learning experience, as exemplified in a community service programme that demonstrated the importance of video in supporting learning (Nabilla et al., 2023).

The TRI N (*Niteni*, *Niroke*, and *Nambahi*) Snack Video educational content training has been an innovative effort to support teacher professionalism at the elementary school level. This training introduced teachers to the Snack Video application as a tool for creating engaging and relevant educational content for students.

During our discussions in the field, we found that not all teachers at Al Lukmanul Hakim Integrated Islamic Elementary School incorporate social media, such as Snack Video, into their learning activities. Additionally, the partners faced challenges due to a need for more technical skills to effectively use Snack Video as a medium for learning, promotion, and online documentation of teacher activities at Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School.

Technical skills refer to the knowledge of methods, processes, procedures, and techniques for performing specific activities and the ability to use relevant tools (Andrianto, 2020). Teachers preparing to lead classes must possess knowledge and skills in using internet media, such as video clips. This proficiency can enhance creativity and motivation, crucial for practical learning

activities at Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School. In this training, teachers engaged in discussions based on their experiences. The training utilised the Tri-N method (*Niteni, Nirokke, Nambahi*), vital in improving the participants' understanding. During the *Niteni* stage, participants are encouraged to observe and comprehend the material presented. It is followed by the *Nirokke* stage, where participants imitate or replicate the explanations. Research has shown that applying the Tri-N method can increase student involvement in learning (Ermawati & Rochmiyati, 2020).



Figure 1. Discussion activity with teachers

Table 3 presents the identification results from the Tri N-based video snack training (*Niteni, Niroke, and Nambahi*) aimed at enhancing the professionalism of the teachers at Al Lukmanul Hakim Integrated Islamic Elementary School.

Table 3. Identification of technical skills in creating Snack Video educational content

Number	Variable	Before Tri-N	After Tri-N
1	Creating a Video Snack account name.	Teachers still need to decide about creating a creative account name that viewers can easily find.	Teachers become familiar with and develop creative video snack account names to ensure viewers easily find them.
2	Editing video	The video editing process is an obstacle for some teachers who need to gain skills in this area. It can reduce the quality and appeal of the video content produced.	Teachers have begun to understand how to edit videos correctly using the cap cut feature and attract viewers.
3	Video Theme Selection	Many teachers still need help to identify engaging video themes.	The teacher becomes creative in developing the theme of the video.
4	Understanding of Copyright and Digital Ethics	Most teachers need to become more familiar with copyright laws and digital ethics.	Teachers learn to apply copyright principles and digital etiquette when using content from other sources in their videos, respecting the rights and privacy of others.
5	Upload Video	Some teachers still need to learn how to upload videos.	Teachers are learning how to upload content so audiences can view it more easily.

The concept introduced by Ki Hadjar Dewantara, which can be applied in learning through Snack Video media, is known as the Tri N principle: *niteni, niroke, and nambahi*. *Niteni* refers

to observation, while *niroke* emphasises imitation, particularly of best practices. *Nambahi* focuses on addition and improvement, ensuring that the final result is better than before. This *Niteni-Niroke-Nambahi* concept is an innovation derived from Ki Hadjar Dewantara's thoughts, especially in learning at Tamansiswa, which he regarded as his creative laboratory. Implementing the *niteni*, *niroke*, and *nambahi* framework is complex, as the stages are interrelated and cannot be separated. It is a systematic, sequential, and tiered approach. Each stage must be completed to achieve comprehensive and integrated knowledge and skills (Wigati et al., 2018).

Niteni, *niroke*, and *nambahi* concepts have significantly improved teachers' technical skills when processing educational video content for snack videos. The teachers learned how to analyse every trending snack video effectively. *Niteni*, based on the teachings of Ki Hajar Dewantara, involves the act of observing and searching for videos that are popular among viewers. According to (Rahayu et al., 2018), *niteni* refers to seeking and understanding the meaning, nature, characteristics, procedures, and truths of an object of observation through sensory means. In this context, Al Lukmanul Hakim Integrated Islamic Elementary School teachers were also guided to use music free from copyright claims to ensure that their video content complies with community guidelines and avoids penalties for copyright violations.

For the videos produced by teachers to be of high quality, the *niroke* aspect is necessary because *niroke* is the activity of imitating the video content they have marked. In this phase, they make videos by recording teachers' teaching or other activities. Furthermore, they edit the video using the cap cut editing feature and audio music free from copyright claims (see Figure 2). In addition, Al Lukmanul Hakim Integrated Islamic Elementary School teachers are asked to provide educational value in each piece of content created by *adding* or making innovations from what they have seen in each trending content so that it has a quality novelty that viewers feel comfortable watching the video. From this *add-on* concept, we found that teachers like creating video content using AI images in the stamp cut feature. Besides that, they also want to record short 1-minute videos while doing activities in the classroom, even take videos of student activities while learning the Koran, mathematics and science.

In addition, we found that the teacher of SD Islam Terpadu AL Lukmanul Hakim 2 Yogyakarta not only shares learning materials but also uses his creativity to package information into short videos that attract attention. The teacher creates content that inspires and benefits his audience through interesting visual effects, clear narration, and innovative learning methods.

Through consistent effort and dedication in regularly uploading quality content, the teacher's *Snack Video* account started to gain attention (see Figure 3). The number of viewers increased significantly from hundreds to thousands quickly. People started recognising him as a creative and dedicated teacher who developed education through digital media. This success is a source of pride for the teacher and an inspiration for fellow teachers to use technology more effectively in their learning process. Thus, the teacher not only reached thousands of viewers on the Snack Video platform but also inspired and motivated other educator communities to continue innovating in improving education quality.



Figure 2. Video Editing Learning Activity Featuring the Tri-N Concept

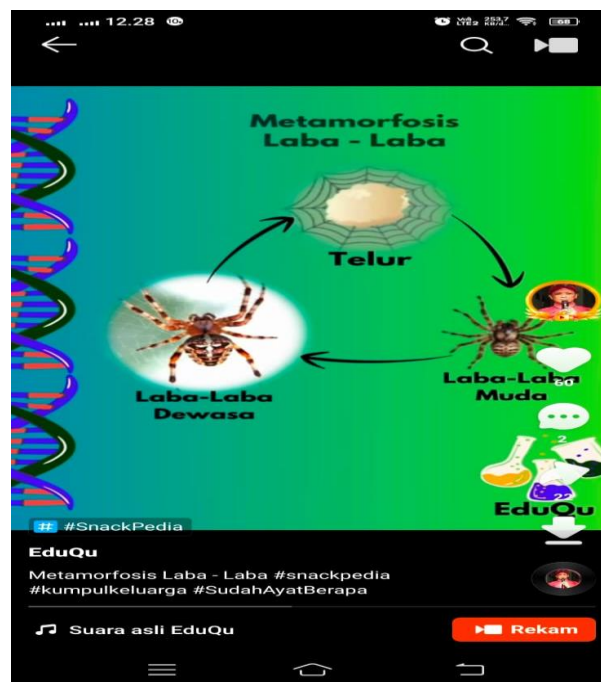


Figure 3. Sample Snack Video Account for Teachers

Evaluation of the training results of Tri N-based video snack education content

As part of the Tri N-based video snack educational content training activities, we evaluated by distributing an online questionnaire to the WhatsApp group of teachers at Integrated Islamic Elementary School AL Lukmanul Hakim 2 in Yogyakarta. The results of the questionnaire are presented in [Table 4](#).

Based on the data in [Figure 4](#), we found that 65% of the teachers had fairly good editing skills for educational content creators on the *Snack Video* platform. Despite this, the teachers showed a good understanding of the socialisation materials, with 80% having a good understanding, 14% having excellent knowledge, and only 1% having a poor experience. Content editing skills are essential to developing effective digital media in educational and

marketing contexts. Training focussed on improving audio and video editing skills has significantly benefited participants (Barnabas et al., 2023).

Table 4. Questionnaire data on understanding and satisfaction of teacher training

Number	Question Item	Participant Answer (%)				
		Very good	good	Fairly Good	Not good	Very Unfavourable
1	Video editing skills			65		
2	Level of understanding of the socialisation material	16	80			4
		Very Satisfied	Satisfied	Quite Satisfied	Not Satisfied	Very Dissatisfied
3	Teacher satisfaction with service activities	20	60			20

The following is a visualisation chart based on the data obtained from the questionnaire.

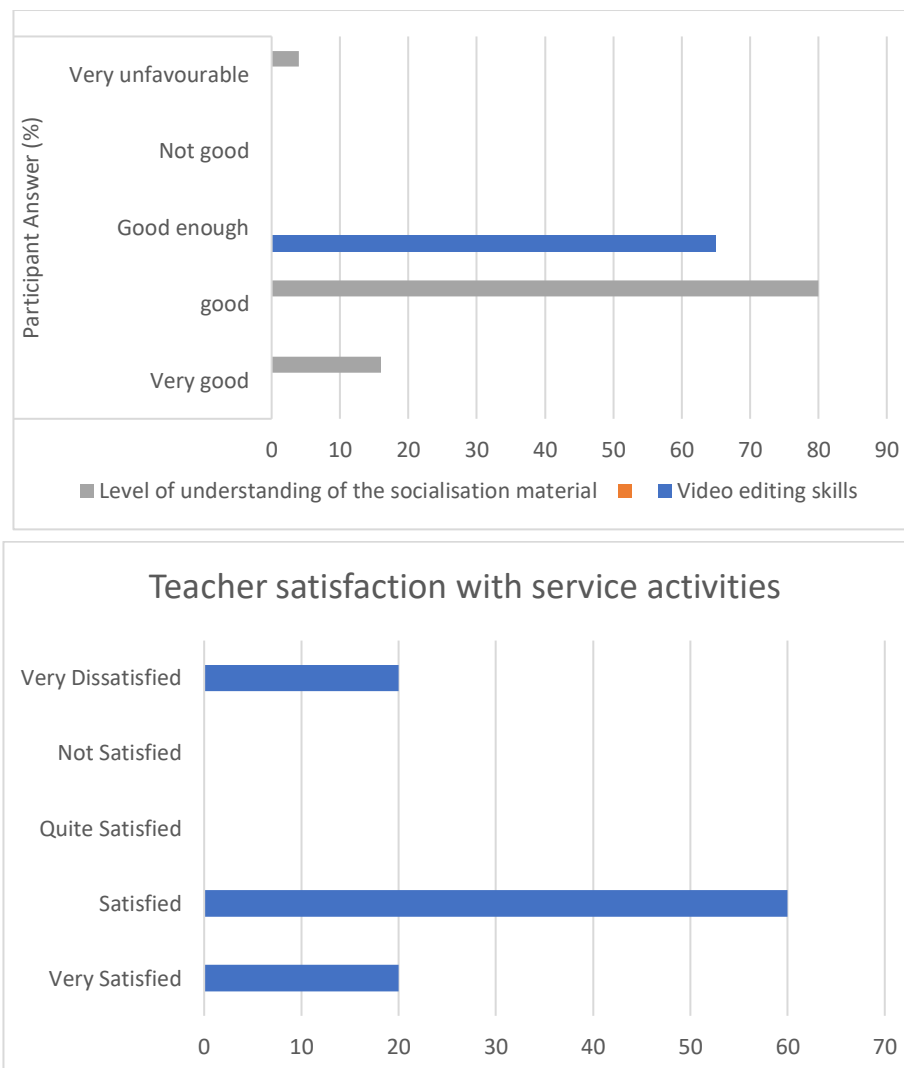


Figure 4. Graph of editing skills and material understanding and satisfaction with the activity

Regarding satisfaction with the service activities, 20% of the teachers expressed dissatisfaction, 60%, and 20%. Although some teachers were dissatisfied, most were satisfied or very satisfied with this service activity. In conclusion, this service confirms the importance of building teacher professionalism through developing technical skills in educational content creation. It aligns with Tamansiswa's teachings on Niteni, Niroke, and Nambahi concepts. The Snack Video platform allows teachers to creatively deliver educational information to the nation's generation.

These findings indicate the need to improve the editing skills of educational content creators among teachers while strengthening their understanding of socialisation materials. In addition, it is also important to continue paying attention to the teachers' satisfaction with the service activities to continue improving the quality and effectiveness of this programme in supporting the development of teacher professionalism.

Conclusion

Based on the service results, it can be concluded that this training program successfully met all its objectives and significantly impacted the teachers. A series of training sessions were carried out for the instructors at Al Lukmanul Hakim 2 Integrated Islamic Elementary School. The data indicates that 65% of the teachers demonstrated proficient editing skills for creating educational content on the Snack Video platform. Furthermore, the teachers' comprehension of the material presented during the training was notably strong: 80% exhibited a good understanding, 14% had an excellent understanding, and only 1% showed a poor understanding.

Regarding satisfaction with the training activities, 20% of the teachers expressed dissatisfaction, 60% reported being satisfied, and 20% stated they were very satisfied. Moreover, the collaboration between teachers and practitioners enabled effective knowledge transfer, enriching the teachers' insights with current best practices in educational content creation. Thus, this initiative not only provided direct benefits to the teachers but also has the potential to enhance the quality of learning at the primary level through innovative approaches that align with contemporary technological trends.

Acknowledgement

We would like to express our sincere gratitude to LP2M Sarjanawiyata Tamansiswa University for providing financial support for community service activities in 2024. Additionally, we extend our heartfelt thanks to the principal and teachers of Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School for their cooperation, support, and active participation in implementing the Tri N-based video snack educational content training. The active contribution of this school has been a vital factor in the success of this event. The collaborative spirit demonstrated by Al Lukmanul Hakim 2 Yogyakarta Integrated Islamic Elementary School has positively impacted the participants and enriched the learning process. We appreciate your dedication and commitment to improving the quality of education and for being a valuable

partner in our efforts to advance the field of education. We hope this collaboration will continue flourishing and benefit all parties involved.

References

- Anafiah, S., & Hangestiningsih, E. (2019). Implementation of Learning Models Numbered Head Together Through Tamansiswa Teachings Niteni, Niroke, Nambahi in the Written Indonesian Language Skills Course Elementary School Teacher Education Study Program. *Aksis: Jurnal Pendidikan Bahasa dan Sastra Indonesia*, 3(2), 287-295. <https://doi.org/10.21009/AKSIS.030206>
- Andrianto, S. (2020). Pengaruh keterampilan teknis, keterampilan sosial, keterampilan konseptual, dan keterampilan manajerial terhadap kinerja kepala sekolah dasar negeri di wilayah jakarta pusat. *Jurnal Manajemen Pendidikan*, 289-297. Retrieved from: <https://core.ac.uk/download/pdf/290137622.pdf>
- Aulia, U., Efriyanti, L., & Munardi, A. (2023). Pengaruh Penggunaan Media Pembelajaran Berbasis Video Tutorial Terhadap Hasil Belajar Bimbingan TIK Pada Kelas X Di SMAN 1 BATAHAN. In *Cendekia Jurnal Ilmu Sosial Bahasa Dan Pendidikan*. <https://doi.org/10.55606/cendekia.v3i1.677>
- Barnabas, R. A., Murodi, A., & Ayu Putri, N. (2023). Peningkatan kemampuan editing audio pada masyarakat kecamatan pondok melati di majelis Forsimma, Kota Bekasi. *J-Dinamika: Jurnal Pengabdian Masyarakat*, 8(1), 121-125. <https://doi.org/10.25047/j-dinamika.v8i1.3520>
- Behkamal, B., Kahani, M., & Akbari, M. K. (2009). Customizing ISO 9126 Quality Model for Evaluation of B2B Applications. In *Information and Software Technology*. <https://doi.org/10.1016/j.infsof.2008.08.001>
- Chairiyah, S. S., Khayati, N., & Hanifah, E. (2023). Implementasi dan Evaluasi Pengendalian Strategi dalam Meningkatkan Hasil Belajar Siswa pada Jenjang Sekolah Dasar. *Jurnal Ilmu Manajemen Dan Pendidikan*, 3, 87-92. <https://doi.org/10.30872/jimpian.v3iSE.2923>
- Damayanti, S., & Rochmiyati, S. (2019). Telaah penerapan tri-n (niteni, niroke, nambahi) pada buku Bahasa Indonesia Kelas IX SMP. *Jurnal Muara Pendidikan*, 4(2), 388-397. <https://doi.org/10.52060/mp.v4i2.174>
- Ermawati, E., & Rochmiyati, S. (2020). Implementasi tri-N (niteni-nirokke-nambahi) dan ppk (penguatan pendidikan karakter) pada perangkat pembelajaran teks deskripsi Kelas VII di SMP. *Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, 9(1), 8-13. <https://doi.org/10.15294/jpbsi.v9i1.35756>
- Gaskins, W., Guy, B., & Arthur, B. (2023). Reflections on Implementing Participatory Action Research in Engineering. *Journal of Education and Development*, 7(3), 18. <https://doi.org/10.20849/jed.v7i3.1369>
- Ghaffur, T. A. (2017). Analisis Kualitas Sistem Informasi Kegiatan Sekolah Berbasis Mobile Web Di SMK Negeri 2 Yogyakarta. In *Elinvo (Electronics Informatics and Vocational Education)*. <https://doi.org/10.21831/elinvo.v2i1.16426>
- Hendri, H., Azhar, F., & Isjoni, I. (2022). Pengaruh pendidikan & pelatihan (diklat) dan pengalaman mengajar terhadap profesionalisme guru sd negeri se- Kecamatan Batu hampar Kabupaten Rokan Hilir. In *Jurnal Pajar (Pendidikan Dan Pengajaran)*. <https://doi.org/10.33578/pjr.v6i5.8603>
- Herawati, J., Sumartiah, S., & Sari, P. P. (2020). Pelatihan Membangun Jiwa Wirausaha Aneka Kerajinan Berdasarkan Ajaran Tamansiswa Kepada Ibu-Ibu Wirogunan Yogyakarta. In *Japi (Jurnal Akses Pengabdian Indonesia)*. <https://doi.org/10.33366/japi.v5i2.2110>
- Khafsoh, N. A., & Riani, N. (2024). Implementation of Participatory Action Research (PAR) In Community Service Program. *Jurnal Pengabdian Masyarakat*, 5(1), 237-253. <https://doi.org/10.32815/jpm.v5i1.2034>
- Lase, D., Waruwu, E., & Waruwu, S. (2022). Integrasi TIK Dan Pengembangan Kompetensi Digital Guru Prajabatan Di Perguruan Tinggi. In *Lauru Jurnal Ilmiah Pendidikan Ekonomi*. <https://doi.org/10.56207/lauru.v1i1.12>

- Lestari, N. D., & Kusmanto, B. (2018). Peningkatan motivasi dan prestasi belajar dengan model niteni, nirokke, nambahi Kelas X SMK Muhammadiyah Prambanan. *UNION: Jurnal Ilmiah Pendidikan Matematika*, 6(1). <https://doi.org/10.30738/v6i1.2044>
- Marwany, M., Nirmala, B., & Muslim, S. (2023). The Concept of Independent Learning to Stimulate Creativity of Early Children: A Study of Ki Hajar Dewantara's Philosophy. *Al-Ishlah: Jurnal Pendidikan*, 15(2), 62–70.
- Nabilla, N., Putera, R. E., & Koeswara, H. (2023). Analisis pengeluaran publik dalam standar pelayanan minimal bidang pendidikan di Kota Bukittinggi. *Jurnal Ilmu Sosial Dan Ilmu Politik (JISIP)*, 12(2), 233–246. <https://doi.org/10.33366/jisip.v12i2.2651>
- Nisa, A. F., Prasetyo, Z. K., & Istiningsih, I. (2019). Tri N (Niteni, Niroake, Nambahake) Dalam Mengembangkan Kreativitas Siswa Sekolah Dasar. In *El Midad*. <https://doi.org/10.20414/elmidad.v11i2.1897>
- Nofrika, D. S., & Suryana, D. (2022). Profesionalisme Guru Dalam Proses Pembelajaran Daring Pendidikan Anak Usia Dini. In *Jurnal Obsesi Jurnal Pendidikan Anak Usia Dini*. <https://doi.org/10.31004/obsesi.v6i6.3445>
- Nugraha, M. F., Sya, A., Sunaryo, S., Husen, A., Hendrawan, B., & Purwanto, A. (2021). Implementasi Media Video Pembelajaran Pendidikan Lingkungan Hidup Terintegrasi IPA untuk Siswa Sekolah Dasar pada Platform Youtube. *Naturalistic: Jurnal Kajian Penelitian Pendidikan Dan Pembelajaran*, 5(2b), 934–941. <https://doi.org/10.35568/naturalistic.v5i2b.1284>
- Petkov, P. (2023). Facilitation in Education. *Education and Technologies Journal*, 14(2), 255–258. <https://doi.org/10.26883/2010.232.4892>
- Prasetyo, Y. T., Ong, A. K. S., Concepcion, G. K. F., Navata, F. M. B., Robles, R. A. V, Tomagos, I. J. T., Young, M. N., Diaz, J. F., Nadlifatin, R., & Redi, A. A. N. P. (2021). Determining Factors Affecting Acceptance of E-Learning Platforms During the COVID-19 Pandemic: Integrating Extended Technology Acceptance Model and DeLone & McLean IS Success Model. In *Sustainability*. <https://doi.org/10.3390/su13158365>
- Rahayu, I., Purnami, A. S., & Agustito, D. (2018). *Penerapan Konsep 3N (Niteni, Nirokke, Nambahi) untuk Meningkatkan Motivasi Belajar Matematika Siswa*.
- Roca, S. (2024). Gestión de proyectos de ciencia abierta. Una experiencia de investigación acción participativa. *Revista Gestión de Las Personas y Tecnología*, 17(49), 24. <https://doi.org/10.35588/spdac595>
- Udiani, N. K. I., & Kristiantari, M. G. R. (2021). Video Pembelajaran Pengenalan Lambang Bilangan Berbasis Teori Brunner Untuk Anak Usia Dini. In *Jurnal Pendidikan Anak Usia Dini Undiksha*. <https://doi.org/10.23887/paud.v9i1.34445>
- Verweij, L., Metsemakers, S. J. J. P. M., Ector, G. I. C. G., Rademaker, P., Bekker, C. L., van Vlijmen, B., van der Reijden, B. A., Blijlevens, N. M. A., & Hermens, R. P. M. G. (2023). Improvement, Implementation, and Evaluation of the CMylife Digital Care Platform: Participatory Action Research Approach. *Journal of Medical Internet Research*, 25, e45259. <https://doi.org/10.2196/45259>
- Wigati, S., Rahmawati, D. S., & Widodo, S. A. (2018). *Pengembangan youtube pembelajaran berbasis Ki Hadjar Dewantara untuk materi integral di SMA*. Prosiding Seminar Nasional Etnomatnesia, ISBN: 978-602-6258-07-6