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RESEARCH ARTICLE

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OPTIMIZING LEARNING WITH TECHNOLOGY: ONLINE ATTENDANCE, AI, AND GESCHOOL AT MAN 2 PAYAKUMBUH THROUGH THE LOVE-BASED CURRICULUM (KBC) APPROACH

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ABSTRACT
Educational transformation in the digital era demands the integration of technology into the teaching and learning process. This article describes a community service activity at MAN 2 Payakumbuh, which implemented three technological components—online attendance, artificial intelligence (AI), and the Geschool learning platform—using the Love-Based Curriculum (KBC) approach. This activity aimed to improve the effectiveness, efficiency, and humanization of the learning process. The Community Service method used was a participatory and collaborative approach with the school for two months. These activities included: a. Teacher workshops on the use of online attendance applications and Geschool. b. Training on AI Education Tools such as ChatGPT, Canva AI, and AI for creating teaching materials. c. Introduction and mentoring for the implementation of KBC, through character development based on the values of love, empathy, and spirituality in learning. An evaluation of this activity was also conducted. The results showed that the synergy between technology and the values of compassion in education had a positive impact on student learning motivation, teacher engagement, and improved classroom management.

Introduction

The Industrial Revolution 4.0 has brought significant changes to the world of education. Digitizing learning is no longer an option, but a necessity. The use of technologies such as online attendance applications, artificial intelligence (AI), and online learning platforms has been proven to increase the efficiency and effectiveness of the teaching and learning process (Wahyuni et al., 2022). One such learning process at the high school level is In-House Training (IHT), a training program organized by driving schools within the Merdeka curriculum (Mulyasa, E. 2018). This IHT aims to refresh teachers' understanding of the importance of using appropriate methods and the strategic role of the learning committee as a stimulant and initiator of change in the school environment.

This is also implemented by Madrasah Aliyah Negeri (MAN) 2 Payakumbuh, an educational institution in West Sumatra with great potential to become a model for a values-based digital madrasah. The development of digital technology has presented various new opportunities in education, including in terms of the effectiveness of the teaching and learning process and school management. In today's era of digital transformation, the integration of technologies such as online attendance, artificial intelligence (AI), and

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online learning platforms like Geschool is a strategic solution for improving the quality of learning and the efficiency of educational administration (Zulfa, 2024).

State Islamic Senior High School (MAN) 2 Payakumbuh, as an educational institution in West Sumatra, has great potential to become a model for a values-based digital madrasah. However, optimal use of technology still faces challenges, ranging from limited digital literacy among teachers and students to a lack of synergy between technological innovation and a student-centered pedagogical approach.

In this context, the Love-Based Curriculum (KBC) approach serves as a crucial foundation that prioritizes the values of compassion, empathy, and emotional engagement in the educational process. The KBC not only promotes cognitive achievement but also fosters harmonious relationships between teachers, students, and the learning environment. The integration of technology within the KBC framework is expected to bridge the gap between students' emotional needs and the demands of 21st-century learning (Hidayat, R, 2021).

This community service activity aims to optimize the learning process at MAN 2 Payakumbuh through the use of online attendance, AI technology for learning assistance, and the Geschool platform as an interactive medium (Geschool, 2022). All of these efforts are implemented using the Love-Based Curriculum (KBC) approach to ensure that technology is not merely a tool but also a means of creating a loving, collaborative, and meaningful learning environment.

However, technological sophistication must be balanced with a humanistic approach to avoid diminishing the essence of education as a process of humanizing humans. Therefore, the Love-Based Curriculum (KBC) approach, which emphasizes the values of compassion, empathy, and sincerity (Hidayat, R, 2021) in the learning process, was introduced to complement the technology-based approach at MAN 2 Payakumbuh.

Materials and Methods

This community service program was carried out over a two-month period through a participatory and collaborative approach involving active engagement with the partner school. The program aimed to enhance the digital and pedagogical competencies of teachers while also supporting the school's character-based curriculum initiatives. The first phase of the program focused on conducting workshops for teachers on the use of online attendance applications and the *Geschool* platform. These sessions aimed to familiarize teachers with digital tools that support classroom management and communication.

In the second phase, participants received hands-on training in the use of Artificial Intelligence (AI) tools for educational purposes. The training introduced platforms such as ChatGPT, Canva AI, and other AI applications relevant to the development of innovative and effective teaching materials, with the goal of improving the learning experience and instructional delivery. The program also introduced and supported the implementation of the *Karakter Berbasis Cinta* (KBC) approach, emphasizing character development through the values of love, empathy, and spirituality. This dimension of the program sought to align pedagogical practices with holistic student development grounded in moral and ethical values. To assess the effectiveness of the program, a combination of observation, interviews, and questionnaires was employed, involving both teachers and students. These evaluation methods provided valuable insights into the impact of the program on teaching practices and school culture.

Results and Discussion

MAN 2 Payakumbuh City is a state-owned Islamic high school located in West Payakumbuh District, Payakumbuh City, West Sumatra. MAN 2 Payakumbuh City was established on January 1, 1970, with a Decree Number for Establishment, under the auspices of the Ministry of Religious Affairs (Kemenag RI, 2022). The operator in charge is Arif Hidayat. With the existence of MAN 2 PAYAKUMBUH CITY, it is hoped that it can contribute to educating the nation's children in West Payakumbuh District, Payakumbuh City.

This school has been accredited A with the Accreditation Decree Number 999/BAN-SM/SK/2021 on October 18, 2021. The address of MAN 2 Payakumbuh City is located at Jl. Soekarno- Hatta Koto Nan IV Payakumbuh Barat Payakumbuh, Balai Nan Duo, West Payakumbuh District, Payakumbuh City, West Sumatra. The map of Payakumbuh city can be seen below:

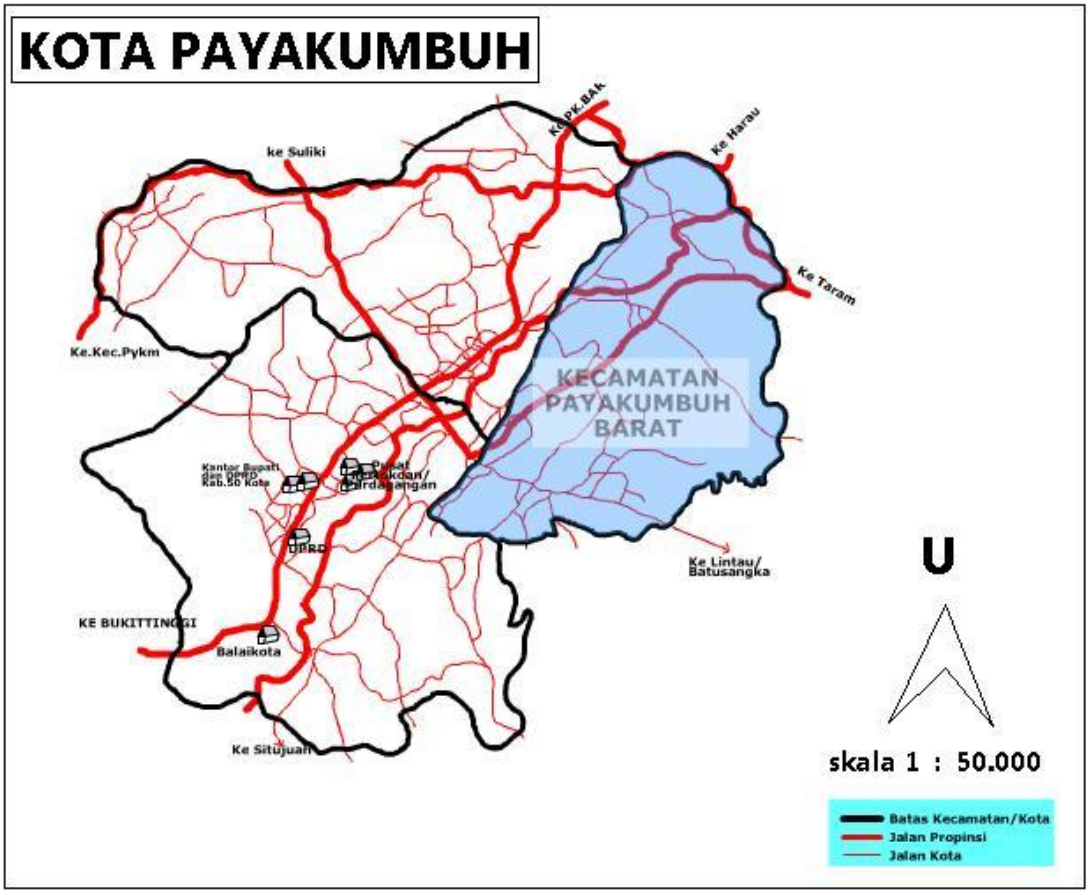

Figure 1. Map of Payakumbuh City

Community service activities carried out at MAN 2 Payakumbuh yielded several important findings reflecting improvements in the quality of learning and educational management through the integration of technology and the Love-Based Curriculum (KBC) approach. Key findings include:

1. Increased Student Attendance Efficiency through Online Attendance

The implementation of an online attendance system based on QR codes or digital applications simplifies the process of recording student attendance and accelerates data recapitulation. Teachers no longer use manual methods, thus optimizing learning time. Data is also stored in real time and can be accessed by homeroom teachers and administration. One important finding from this community service activity is the increased efficiency of recording student attendance through the use of an online attendance system (Puspitasari, D., & Rahman, T. 2021). Prior to the community service, the attendance process at MAN 2 Payakumbuh was generally carried out manually using attendance books. This method has several drawbacks, such as being prone to recording errors, being time-consuming at the beginning of class, and making it difficult to quickly summarize data.

Through the introduction of digital attendance systems—whether QR Code-based, Google Forms-based, or dedicated attendance apps integrated with the school database—this process has seen significant improvements in efficiency and accuracy. Here are some of the improvements identified:

a. Save Time: Teachers can complete the attendance process in minutes, even seconds, compared to manual methods that take 5–10 minutes of class time.
b. Automatic Recapitulation: Attendance data is automatically stored in the system, making it easier for homeroom teachers, administrative staff, and madrasah principals to monitor student attendance on a daily or periodic basis.
c. Real-Time Access: Attendance information can be directly accessed by teachers and even parents (if connected to the reporting system), thereby increasing transparency and oversight.
d. Minimizes Risk of Human Error: Digital systems reduce the risk of typos or omissions common with conventional methods.
e. Improves Student Discipline: Because the system records time in real time, students are more motivated to arrive on time to avoid being automatically recorded as late.

Overall, the implementation of online attendance not only expedites classroom administration but also positively impacts a culture of discipline and transparency within the school environment. This serves as an important foundation for supporting more focused and productive learning.

2. Increased Interest and Participation in Learning through the Use of the Geschool Platform

The Geschool platform facilitates interactive learning for teachers and students (Geschool, 2022). Features such as digital quizzes, discussion rooms, and competency-based practice questions encourage more active student engagement. Many students demonstrated greater enthusiasm for assignments due to the engaging and flexible content.

One significant outcome of the community service activities at MAN 2 Payakumbuh was increased student interest and participation in learning through the use of the Geschool platform. Geschool is an online learning platform that provides various educational features, such as question banks, learning videos, interactive exercises, quizzes, and discussion forums (Gunawan, H., & Widodo, A. 2020). The platform is designed with a user-friendly interface and content relevant to the national curriculum.

Before the intervention, classroom learning tended to be one-way, dominated by lecture methods and the use of conventional media. This caused some students to be less active and less interested in participating in the learning process. However, after Geschool was implemented, several positive changes were identified:

a. More Interactive and Varied Learning: Teachers began integrating Geschool features into the learning process, such as assigning interactive quizzes or discussions through forums. Students became more active in responding because they felt challenged and directly involved.
b. Increased Curiosity and Independence: With materials readily accessible, students were encouraged to learn independently outside of class. They could review material, watch learning videos, or try additional practice questions at their own pace.
c. Engaging Visual Displays and Digital Access: The presentation of digital content with color, images, and videos made learning more enjoyable, especially for students with visual and kinesthetic learning styles.
d. Increased Participation in Assignments and Evaluations: Student participation in assignments and evaluations increased because Geschool facilitated an automated grading

system and direct feedback. This motivated students to try and improve their learning outcomes.

e. Enhancing the Role of Teachers as Facilitators: Teachers not only act as material deliverers, but also as facilitators who direct, motivate, and provide learning challenges through digital media. In general, the use of Geschool can create a more collaborative, responsive, and enjoyable learning environment, in accordance with the spirit of the Love-Based Curriculum (KBC), which is to present learning that is not only informative, but also touches the emotional side and learning interests of students (Gunawan, H., & Widodo, A. 2020).

3. Implementing AI for Personalized Learning Assistance

The use of AI technology (e.g., learning chatbots or material recommendation systems) has begun to help students independently understand difficult material (Adams, R. 2019). Some students who previously experienced learning difficulties showed improved understanding because they could access additional explanations whenever needed. In this community service activity, one of the innovations implemented was the use of artificial intelligence (AI) technology to assist students in a more personalized learning process (Adams, R. 2019) at MAN 2 Payakumbuh. Personalized learning assistance refers to learning strategies that adapt material, pace, and learning styles based on individual student needs.

The implementation of AI is carried out through the use of educational chatbots, virtual learning assistants, and AI-based platforms that can analyze student achievement and provide automatic feedback (Adams, R. 2019). Some of the implementations and impacts found are as follows:

a. Learning Assistance According to Student Level

AI can provide adaptive questions tailored to the student's ability level. Students who struggle will be given reinforcement material, while students who quickly grasp it will be directed to the next learning challenge. This helps prevent students from getting bored or frustrated by material that is not appropriate for their level.

b. 24/7 Access to Self-Explanation

With learning chatbots or AI like ChatGPT, integrated in a limited way into the learning process, students can ask questions at any time outside of school hours. This is very helpful, especially for students who feel embarrassed to ask questions in class or need to review material.

c. Direct and Targeted Feedback

AI provides automatic feedback on practice questions or quizzes, including error explanations and recommendations for follow-up material. This increases the effectiveness of self-study and accelerates the student's learning cycle.

d. Increased Student Confidence

Students feel more confident because they can learn at their own pace without pressure. They also feel more comfortable interacting with the AI system when practicing or reviewing material.

e. Efficient Teacher Role

Teachers can use data from AI systems to monitor individual student learning progress and identify students who need more intensive support (Adams, R. 2019). This makes the teacher's role more strategic in nurturing students emotionally and academically, in line with the principles of the Love-Based Curriculum (KBC).

Implementation Challenges

Implementation challenges always exist. Despite its many benefits, AI implementation still faces obstacles such as (a) Limited student devices (gadgets or internet access), (b) Low technological literacy among some teachers, and (c) Need for further training to utilize AI optimally and ethically. Therefore, the implementation of AI as a personalized learning companion has shown a positive impact on student motivation, independence, and learning outcomes. This integration becomes more meaningful when framed within the Love-Based Curriculum approach, as it positions students as unique individuals and deserves learning support tailored to their needs (Hidayat, R, 2021). For more details, see the image below of the activities implemented at MAN 2 Payakumbuh.

Figure 2. Speakers and MAN Teachers
(Source: Documentation, MAN 2 Payakumbuh)

Strengthening Emotional and Relational Values through the KBC Approach

The Love-Based Curriculum approach strengthens the emotional connection between teachers and students. Teachers are more aware of the importance of creating a fun, empathetic learning environment that respects differences (Mulyasa, E. 2018). This is reflected in increased student engagement in class discussions and more open communication. One fundamental aspect of this community service activity is the implementation of the Love-Based Curriculum (KBC) as the primary approach for integrating technology into learning at MAN 2 Payakumbuh (Hidayat, R, 2021). The KBC approach emphasizes the importance of warm, empathetic, and meaningful relationships between teachers and students, as well as between students and the learning process itself.

Technologies such as online attendance, AI, and the Geschool platform offer efficiency and modernization, but without a touch of emotional values, their use can become rigid and distant. This is where the KBC becomes a crucial bridge to ensure that digital innovation remains human-centered and supports the holistic development of students' character. Findings on Strengthening Emotional and Relational Values:

a. Teachers Become More Aware of Their Emotional Role Through training and reflection in the community service program, teachers began to realize that their role is not simply to deliver

material, but rather to be caring companions who listen and are emotionally present for students. Teachers are encouraged to initiate conversations at the beginning of class, ask how students are doing, and provide positive reinforcement.

b. Establishing a Safe and Comfortable Learning Environment. With the KBC approach, learning no longer feels like a burden, but rather a joyful space for growth. This encourages students to be more open to asking questions, discussing, and expressing opinions without fear.
c. Improving Interpersonal Relationships in the Classroom. Students demonstrated increased mutual respect and caring among their peers, as the values of love, empathy, and responsibility were consistently instilled. Teachers also facilitated collaborative activities that strengthened cooperation and togetherness.
d. Integrating Character Values in the Use of Technology. Technologies such as AI and Geschool are not only used for cognitive aspects but are also utilized to embed moral and spiritual values (Wijaya, A. F., 2023) (Yusuf, M, 2020). For example, teachers provide reflective reminders at the end of online assignments or insert inspirational quotes into digital learning materials (Nurhadi & Yuliana, T. 2020).
e. Increasing Concern for Student Well-Being. KBC encourages teachers to be more sensitive to students' psychological and social conditions. Teachers become more open to hearing students' concerns and create informal discussion spaces to foster healthy emotional relationships. For more details, see Figure 2 below:

Figure 3. Presenter Giving Instructions to Participants
(Source: Documentation, MAN 2 Payakumbuh)

Therefore, the Love-Based Curriculum Approach not only strengthens the connection between students and teachers (Santrock, J.W., 2012) but also serves as a key foundation for creating a more humane, empathetic, and meaningful learning climate. In the context of technology integration, KBC ensures that digital transformation in schools remains grounded in humanitarian values, not merely efficiency (Hidayat, R, 2021).

Obstacles and Challenges Faced

Some obstacles encountered included limited technological devices among students, varying levels of teachers' digital literacy, and the need for further training in the use of AI and Geschool. However, the overall enthusiasm for adaptation from teachers and students was very positive.

Impact on School Culture

The collaboration between technology and the values of love has begun to shape a more dynamic and humanistic learning culture. Schools are beginning to demonstrate a transformation from a bureaucratic system to one that is more responsive to the needs of students as individuals. KBC is implemented through the integration of values of love into the teaching process: teachers open classes with a loving greeting, daily reflection, and positive affirmations. Teachers are also trained to understand students' emotional needs and provide an empathetic approach. This is evident in the importance of teacher training, as appropriate teaching resources for the changing educational landscape are a significant challenge. This study proposes the incorporation of cultural discourse into teaching resources for educational professionals to meet the requirements of the self-directed learning curriculum. To create these innovative teaching resources, the 4-D development model of defining, designing, developing, and disseminating was carefully followed. Improved student learning outcomes demonstrate the usefulness of the teaching materials, although lecturers' understanding and implementation varied. Cultural dialogue within professional educational materials enhances learning and creates a more inclusive and engaging educational environment, according to the findings (Yulastri, 2023).

Conclusions

Optimizing learning at MAN 2 Payakumbuh through the use of technologies such as online attendance, artificial intelligence (AI), and the Geschool platform has had a significant impact on improving efficiency, participation, and educational quality. This approach is further enhanced by the implementation of the Love-Based Curriculum (KBC), which emphasizes the values of compassion, care, and humanization in the teaching and learning process. Through online attendance, student attendance can be monitored in real time and more accurately, fostering responsibility and discipline. AI technology supports personalized learning tailored to student needs, while Geschool serves as an interactive learning medium that strengthens understanding of the material. The Love-Based Curriculum serves as a philosophical foundation that unites the use of technology with a humanistic approach. This collaboration creates an inclusive, compassionate, and adaptive learning environment, without losing the essence of humanity in education. Thus, the integration of technology into learning, grounded in the values of the KBC, can create an intelligent, caring, and meaningful educational ecosystem for all school members.

Declaration of Conflicting Interest

The authors state that there is no conflict of interest concerning the publication of this paper.

References

Adams, R. (2019). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Routledge. https://doi.org/10.4324/9780429402019

Daryanto. (2014). *Media Pembelajaran*. Gava Media.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *The Internet and Higher Education*, 2(2–3), 87–105.

Geschool. (2022). *Tentang Geschool*. Diakses dari https://www.geschool.net

Gunawan, H. (2019). Pendidikan Karakter: Konsep dan Implementasi. Bandung: Alfabeta.

Gunawan, H., & Widodo, A. (2020). Pemanfaatan Platform Digital dalam Pembelajaran Jarak Jauh: Studi Kasus Geschool. *Jurnal Teknologi Pendidikan*, 22(1), 45–54. https://doi.org/10.21009/jtp.v22i1.14583

Hamalik, O. (2011). *Proses Belajar Mengajar*. Bumi Aksara.

Hidayat, R. (2021). Membangun Pendidikan Berbasis Cinta: Implementasi Kurikulum Berbasis Cinta dalam Pembelajaran. *Jurnal Pendidikan Humanis*, 6(2), 112–121.

Kementerian Agama RI. (2022). *Kebijakan Transformasi Digital Madrasah*. Jakarta: Direktorat Jenderal Pendidikan Islam.

Ministry of Education and Culture, Indonesia. (2021). *Kurikulum Merdeka: Panduan Implementasi*. Jakarta: Kemendikbud.

Mulyasa, E. (2018). *Pengembangan dan Implementasi Kurikulum 2013*. Bandung: Remaja Rosdakarya.

Munir. (2017). *Pembelajaran Digital*. Bandung: Alfabeta.

Ningsih, T. & Hidayat, M. (2022). Strategi Optimalisasi Pembelajaran Berbasis Teknologi di Madrasah Aliyah. *Jurnal Madrasah dan Teknologi*, 5(2), 134–142.

Nurhadi, & Yuliana, T. (2020). Strategi Implementasi Teknologi AI dalam Sistem Pembelajaran Adaptif. *Jurnal Ilmu Komputer dan Pendidikan*, 9(3), 132–139.

Pranata, E. & Astuti, T. (2021). Pemanfaatan Aplikasi Absensi Online Berbasis Android dalam Meningkatkan Efisiensi Administrasi Sekolah. *Jurnal Teknologi Pendidikan*, 23(2), 112–120.

Puspitasari, D., & Rahman, T. (2021). Efektivitas Absensi Online Berbasis QR Code dalam Meningkatkan Disiplin Siswa. *Jurnal Manajemen Pendidikan Islam*, 4(1), 24–31.

Raharjo, S. (2020). Penerapan Kecerdasan Buatan (AI) dalam Dunia Pendidikan di Era Revolusi Industri 4.0. *Jurnal Teknologi dan Pendidikan*, 4(1), 45–52.

Santrock, J. W. (2012). *Educational Psychology*. McGraw-Hill Education.

Setiawan, R. (2021). Penggunaan Platform Geschool untuk Mendukung Pembelajaran Jarak Jauh pada Masa Pandemi. *Jurnal Inovasi Pendidikan*, 8(3), 215–225.

Sugiyono. (2018). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Suryani, N. (2022). Kurikulum Berbasis Cinta (KBC): Pendekatan Baru dalam Pendidikan Karakter di Era Digital. *Jurnal Pendidikan Karakter*, 12(1), 1–14.

UNESCO. (2020). *Education in a Post-COVID World: Nine Ideas for Public Action*. Paris: UNESCO Publishing.

Wijaya, A. F. (2023). Integrasi Teknologi Digital dan Nilai Karakter dalam Pembelajaran. *Jurnal Pendidikan dan Kebudayaan*, 28(1), 50–64.

Yulastri, W., Zulfa, Z., Juliardi, B., Zulkifli, Z., Rudagi, R., & Yulmiati, Y. (2023). Pengembangan materi pembelajaran profesional pendidikan berbasis wacana budaya di perguruan tinggi. *Jurnal Penelitian Pragmatik dan Wacana* , *3* (1), 111-121.

Yusuf, M. (2020). Pendidikan Karakter Melalui Kurikulum Berbasis Cinta: Pendekatan Psikologi Positif dalam Dunia Pendidikan. *Jurnal Pendidikan dan Psikologi Islam*, 8(1), 63–75.

Zulfa, Z., Husnita, L., Saputra, R., & Sebastianus, S. (2024). Model In House Training and Learning Di Sma Pulau Punjung Kecamatan Dharmasraya. *RANGKIANG: Jurnal Pengabdian Pada Masyarakat* , *6* (2), 132-139.