PRACTICE-BASED ARTICLE



Towards stunting-free villages and independent MSMEs: Synergy of nutrition education, MSME assistance, and community empowerment

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ABSTRACT

The 2024 Thematic Community Service Program (KKN-T) in Juntikedokan Village, Indramayu, aimed to address key social issues while empowering local communities. The program focused on three main objectives: reducing stunting rates through nutritional education and support, enhancing the marketability of local SMEs via digital marketing strategies, and improving primary education with interactive digital tools. Significant strides were made in addressing these challenges through collaborative efforts with local institutions, including Posyandu, Puskesmas, and schools. Key activities included nutrition counseling, SME branding assistance, and digital literacy workshops, complemented by community-building events such as clean-up drives, religious education, and fitness sessions. This program fostered knowledge transfer and strengthened community ties, leaving a sustainable impact on Juntikedokan Village.

KEYWORDS

Community service, stunting prevention, MSME empowerment, digital education, Juntikedokan village

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1. Introduction

Students are equipped with knowledge obtained from lectures, but this can be considered perfect if they are also equipped with real experience that makes an impression. Therefore, with real work lecture (KKN) activities, knowledge in the form of material can be synergized with experience in the field. When problems arise in the field, sometimes the solutions obtained are not under the theories taught but will flow according to the circumstances.

KKN is a program in the field of lectures that provides a good impact for students in gaining experience in the community environment. This program aims to help students contribute to social welfare. Juntikedokan Village is one of our goals, and we want to gain new experiences. This village is in the Juntinyuat sub-district near Tirtamaya Beach and Glayem Beach. With conditions in the field like this, Juntikedkokan Village can be

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said to be in a lowland area because its location is close to the beach. Juntikedokan Village has a population of around 4,063, and this village has potential in agriculture and home entrepreneurship, namely in processed shrimp paste. Most of the livelihoods of the Juntikedokan community are farmers, fishermen, entrepreneurs, and home industries, such as shrimp paste (Kurnia, 2020). However, this situation is not far from challenges such as not being able to freely access technology to increase entrepreneurial activities as well as learning activities in schools that do not use technology and another problem is that self-awareness has not been embedded in maintaining the body's intake so that stunting occurs, in Juntikedokan Village there were 12 recorded people affected by stunting (Hamzah, 2020). Therefore, this Real Work Lecture program is hoped to help the Juntikedokan Village Community overcome these problems.

Through this KKN, students are expected to be able to contribute to the Juntikedokan Village Community by implementing existing and non-existent programs. The superior work program that we have adopted covers the field of small business (MSME) development, namely product branding and stunting prevention. The superior work program will be implemented to stunt education for pregnant women, toddlers and school students (Apriadi, 2022).

2. Method

2.1. Research design

This study employs a qualitative research design with a case study approach to explore the KKN-T implementation and outcomes in Desa Juntikedokan. The research examines the alignment between community needs and program objectives in addressing stunting, empowering small-medium enterprises (SMEs), and promoting educational advancements.

2.2. Research setting

The research occurs in Desa Juntikedokan, Kecamatan Juntinyuat, Kabupaten Indramayu, West Java, from July 15 to August 13, 2024. An agricultural economy, small-scale entrepreneurial activities, and health challenges, including stunting among children, predominantly characterize the village.

2.3. Data collection methods

Data collection employs multiple methods to ensure comprehensive insights:

Observations: Field observations focus on implementing health workshops, SME mentoring, and educational activities. Detailed notes are taken to document the environment, participant engagement, and logistical aspects.

- 1. *Interviews*: Semi-structured interviews are conducted with various stakeholders, including program participants (e.g., mothers, children, and local SMEs), facilitators such as KKN participants and village health officials, and village leaders and community representatives.
- 2. *Document analysis*. Program reports, activity logs, and visual documentation, such as photos of events, are reviewed. Outcomes like social media accounts created for SMEs and attendance records are also analyzed.
- 3. *Surveys*. Pre- and post-program surveys are administered to assess changes in knowledge, attitudes, and practices related to nutrition, SME branding, and educational methods.

2.4. Participants

- 21 university students as program implementers.
- Local community members, including 12 families with stunted children, SMEs, particularly the producer of "Griya Terasi Juntinyuat," Primary school students and teachers.

2.5. Data analysis

The analysis combines qualitative and quantitative techniques:

- 1. *Thematic analysis*. Recurring themes are identified from interview transcripts and observational notes. Key categories include community challenges, program interventions, and perceived impacts.
- 2. *Comparative analysis*. Pre- and post-program conditions are compared to evaluate improvements in health awareness, SME branding, and educational engagement.
- 3. *Descriptive statistics*: Quantitative data, such as attendance figures, SME sales data, and stunting case numbers, are summarized to support findings.

2.6. Validity and reliability

To ensure the credibility and reliability of the research:

- 1. Data triangulation is employed by cross-verifying observations, interviews, and documents.
- 2. Member checking is conducted with participants to validate the findings.

3. Researchers maintain detailed field notes and a reflective journal to ensure consistency throughout the study.

2.7. Ethical considerations

Ethical practices are prioritized to protect participants, including:

- 1. Obtaining informed consent from all participants.
- 2. Ensuring confidentiality and anonymity.
- 3. Minimizing potential harm through careful planning and execution of activities.

2.8. Expected outcomes

The study aims to provide insights into the effectiveness of KKN interventions in addressing community health and socio-economic challenges. Additionally, it seeks to offer recommendations for improving the design and implementation of similar programs in the future.

4. Results and discussion

4.1. Results

Key Accomplishments

The KKN-T in Juntikedokan Village, Juntinyuat Sub-district, Indramayu District, 2024, achieved several notable outcomes:

- 1. *Stunting prevention*: Over a four-week campaign, efforts targeted children, pregnant women, and infants, emphasizing balanced nutrition. Collaborative initiatives with local Posyandu and Puskesmas included educational sessions, Q&A forums, and the provision of supplementary foods.
- 2. *MSMEs empowerment*: Local entrepreneurs, particularly "Griya Terasi Juntinyuat Ibu Masirih," received support through digital marketing strategies, such as creating Instagram accounts and promotional banners to enhance market reach.
- 3. *Education enhancement*. Interactive digital learning tools, including Kahoot and audiovisual materials, were introduced in local elementary schools, improving student engagement and motivation (Sedyastuti, 2018).
- 4. *Environmental and social activities* promoted environmental awareness by promoting pest control in rice fields (Rompek Tikus), community clean-up drives, and waste management initiatives. Social initiatives fostered greater community involvement, including literacy programs, cultural events, and health campaigns (Hamzah, 2020).

Quantitative Insights

Demographics: Juntikedokan Village has a population of 4,068 (2,031 males and 2,037 females). The primary occupations are farming, fishing, and small-scale businesses.

- 1. *Health Indicators*: The village reported 12 cases of stunting, emphasizing the need for ongoing health education and nutritional support.
- 2. *Economic landscape*: The economy is dominated by agriculture, particularly rice and mango cultivation, supplemented by MSME operations, such as shrimp paste production.

Challenges Identified

Limited awareness and utilization of digital tools for business growth. Persistent health concerns, including stunting and insufficient access to advanced healthcare facilities. Monotonous school education is due to the limited use of modern technology.

Recommendations

Expand the stunting prevention program to include more households and train local health workers to ensure sustainability. Develop advanced training programs for UMKM participants, focusing on e-commerce and digital marketing strategies. Provide better access to technology and teacher training in schools to encourage modern and engaging teaching methods. Maintain regular environmental campaigns and strengthen community participation in cleanliness drives.

The program demonstrated significant community engagement, fostering sustainable practices while addressing specific local challenges. The recommendations aim to build upon these foundations for long-term development.

4.2. Results

The 2024 Majalengka University Thematic KKN Program in Juntikedokan Village has been successfully implemented with various main and supporting activities that have positively impacted the community. Figure 1 presents stunting prevention activities, which lasted for four weeks and demonstrated success in educating toddlers, children and pregnant women on the importance of balanced nutrition. This activity involves collaboration with local Posyandu, Puskesmas, and SDN, supported by additional food.

Efforts to empower MSMEs are also going well, with a focus on introducing digital marketing to local business actors. Assistance in creating social media accounts and shrimp paste product banners has provided a strong basis for business owners to increase their market reach (Laili & Andriani, 2019).

Apart from that, various supporting activities such as agricultural service work, teaching visits to elementary schools, social service, religious activities, and holding competitions have increased public awareness of the importance of cleanliness, education and health. The community's active participation in these various activities reflects the success of the KKN program in building close relationships with village residents (Hamzah, 2020).



Figure 1. Prevention of stunting in juntikedokan village

Strengthening the Stunting Prevention Program: It is recommended that this program be continued with regular monitoring and evaluation and that the scope of nutrition education be expanded to all levels of society. Additional training for Posyandu cadres can help ensure the program runs sustainably.

Optimizing MSME Empowerment: There needs to be a follow-up program for MSME players so that they can learn more about digital marketing strategies. Intensive training on content management and the use of e-commerce platforms can help MSMEs develop more rapidly.

Improving Digital Education in Schools: Increasing the use of digital media in the learning process by providing teachers wider access to technology and training. This will help create a more interactive and engaging learning environment for students.

Preservation of Social and Environmental Activities: Community service and environmental cleanliness programs must be continued periodically, emphasizing the importance of environmental awareness in the community. This can be done by holding regular campaigns and providing adequate cleaning facilities.

Promotion of Health and Healthy Lifestyles: Group exercise and sports activities must be expanded and become part of a broader health campaign. Promotion of the importance of exercise, healthy eating patterns and routine health checks must continue to be carried out to improve people's quality of life (Sedyastuti, 2018).

We have carried out outreach on stunting prevention, targeting toddlers, children and pregnant women. This stunting prevention outreach activity was carried out at SDN Juntikedokan 2, at the Toddler Class Posyandu located at the Juntikedokan Village Hall, at SDN Juntikedokan 1, at the Posyandu located at Pos Anggrek 2, Block Celeng, and at the Pregnant Mother Class Posyandu located at Mrs. midwife Yaya.

Juntikedokan Village KKN-T students collaborate with the nearest Posyandu and Puskesmas to prevent increased stunting rates in Juntikedokan village. The activities included introductions and approaches, delivery of material related to the importance of consuming balanced nutritious food in preventing stunting delivered by midwives Yaya and students, question and answer sessions, and games. They closed with a group photo session and distribution of additional food in the form of Sari Gandum biscuits, milk, and fresh fruit.

In Figure 2, we have carried out a visit to the local MSME for shrimp paste products: "Griya Terasi Juntinyuat Ibu Masirih," which is located at the shrimp paste production house Griya Juntinyuat Ibu Masirih, Juntinyuat District, Indramayu Regency. During this visit, we introduced the concept of digital marketing through social media such as Instagram to increase sales and reach a broader target market. We also help business owners to create Instagram accounts and banners for their shrimp paste products. This makes it easier for consumers to recognize the products being sold. With this visit, we hope business owners can better understand the importance of digital marketing in increasing sales and developing a business (Halim, 2022).



Figure 2. Empowerment of local MSMEs homemade shrimp paste products

In Figure 3, we participated in Rompek Tikus agricultural activities. This activity is a routine program held by active farming members of Juntikedokan village. This activity was carried out to eradicate rat pests in rice plants growing on agricultural land in Juntikedokan village. With this activity, it is hoped that it will eradicate rat pests that often attack rice plants belonging to farmers in Juntikedokan Village.



Figure 3. Rompek Tikus Juntikedokan Village

Figure 4 shows that we conducted teaching visits at three elementary schools (SD) in Juntikedokan Village: SDN Juntikedokan 1, SDN Juntikedokan 2, and SDN Juntikedokan 3. In this teaching visit, we introduced the use of digital media in the learning process, aiming to foster students' motivation and enthusiasm for learning to participate in learning.

The media we use in the learning process is audiovisual media in the form of animated videos and Kahoot-based online interactive media. The activities include introductions and approaches, delivery of material, questions and answers, collaborative games, and closing with the distribution of awards for game winners and group photos. With this visit, we hope educators can implement digital media in learning. So that in learning activities, students' motivation and enthusiasm for learning will continue to be embedded.



Figure 4. Teaching at SDN Juntikedokan

Figure 5 shows that we have carried out social service activities. We carry out this social service activity around the nearest post and prayer room. On Friday of this activity's first week, we tidied up the post, pulling grass and sweeping the post yard. Then, proceed with sweeping around the road leading to the post. We cleaned and tidied up the prayer room closest to the post on Friday of the Second Week. On Friday of the Third Week, we made rubbish bins to be placed in village areas that did not yet have rubbish bins. With this activity, it is hoped that the public will be aware of the importance of keeping the surrounding environment clean.



Figure 5. Juntikedokan Village social services

Figure 6 presents how we have carried out Koran-teaching activities. This activity is routinely carried out daily at the Ma'wal Abidin prayer room. This activity starts at five in the afternoon and lasts until the end of the congregational Isha prayer. This activity was attended by children of various ages ranging from 5 years old to 12 years old. Apart from learning to recite the Koran, children are taught about daily prayers and trained in Marawis in this activity. Hopefully, this activity can instill and familiarize children with a love of reciting the Koran and praying together in prayer rooms.



Figure 6. Teaching the Koran in Juntikedokan Village

Figure 7 shows that how we have conducted socialization activities for Majalengka University (UNMA). This activity was carried out on July 22, 2024. We carried out UNMA socialization to class 12 of SMK PGRI Kamal by getting to know various information about UNMA, such as the facilities available at UNMA, the faculties and study programs that UNMA has. , a scholarship in collaboration with UNMA.

Figure 8 shows that we contributed to the celebration event commemorating National Children's Day, which was held at SDN Juntikedokan 1. This celebration was held on July 23, 2024. This celebration was filled with various activities and competitions. This celebration began with a leisurely walk from SDN Juntikedokan 1 to the Juntikedokan Village Hall and back again to SDN Juntikedokan 1. Then, we continued with competition activities, including inter-class fashion show competitions and whispering competitions. The activity closed with awards for the winners and a group photo.



Figure 7. UNMA socialization at PGRI Kamal Vocational School



Figure 8. Juntikedokan Village Children's Day celebration

Figure 9 shows that we have held religious competitions at the Ma'wal Abidin Mosque. We will hold this religious competition on July 28, 2024. The competitions we

hold in this activity include coloring and adhan competitions. Participants in this competition were children who attended regular recitations at the Ma'wal Abidin Prayer Room. The series of events includes the opening, reading of the holy Koran, prayers, speeches, Marawis performances, competitions, door prizes, and closing with the announcement of the winners and group photos. With this activity

Hopefully, it will foster children's interest, enthusiasm, and motivation to enjoy reciting the Koran and praying in the congregation's prayer room.



Figure 9. Juntikedokan Village religious competition

Figure 10 shows that we have carried out gymnastics activities together. KKN-T Juntikedokan students, village government women, and the community attended this joint exercise activity. This gymnastics activity was held on July 27, 2024, at the Juntikedokan village hall. With this activity, it is hoped that people will be aware of the importance of exercise so that the body remains healthy and fit.



Figure 10. Gymnastics with Village government women

Figure 12 shows that we participated in Marhaban activities on July 21 and August 10, 2024. This Marhaban activity is routinely held once a week for women reciting the Koran at the prayer room and once a month for village government women, usually held at the Ma'wal Abidin and Mosque prayer rooms at the Juntikedokan Village Hall. This activity was carried out to strengthen ties between residents of Juntikedokan Village.



Figure 11. Literacy activities with children

Figure 11 shows that we have carried out literacy activities with the children by learning language, writing and arithmetic, apart from that, we have guided them to make crafts for school assignments.



Figure 12. Marhabanan Juntikedokan Village

5. Conclusion

The KKN-T program in Juntikedokan Village, Juntinyuat District, Indramayu Regency, 2024, successfully addressed multiple community needs through targeted initiatives. Key

achievements included stunting prevention efforts that educated children, mothers, and pregnant women about balanced nutrition, supported by collaborations with Posyandu and local schools. Empowerment of local businesses was also a significant focus, with digital marketing strategies introduced to expand market reach for products like fermented shrimp paste (*terasi*). Educational development further benefited from integrating digital tools and interactive platforms in schools, fostering greater student motivation and engagement.

Beyond these core initiatives, the program strengthened community cooperation through agricultural pest control, Quran recitation teaching, and community clean-up drives, which enhanced environmental awareness and social bonds. Health and lifestyle promotion, including fitness sessions and literacy events, improved quality of life (Budiman, 2019). This program facilitated a positive collaboration between the university team and the local community and laid a solid foundation for sustaining and expanding these efforts in the future.

Disclosure statement

The authors declare that there is no conflict of interest regarding the publication of this paper.

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