



Efforts to Improve the Welfare of Rural Communities in the Fields of Agriculture, Education, and Socio-Cultural Aspects.

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ABSTRAK

The KKNT-55 program is carried out to form students who are tenacious, tough, independent, hardworking, squat, and have an entrepreneurial spirit. In addition, by holding KKNT student activities it is hoped that they will become more sensitive, empathetic, and concerned about humanity and the environment. This KKNT activity was carried out using observation, counseling, training, and question-and-answer methods. Before being officially released to the field on July 18 2023, the executors first conducted a review and observation of the location. After carrying out the review, the implementer then designs the activities or programs that will be implemented in the previously determined village. In its implementation, the implementers mingle directly with the community and also become laypeople to find out what the problems are in the village. Programs that were successfully implemented in the KKNT-55 activities included: "Let's Learn in the Mini Library" activity; Socialization of bullying prevention for elementary school students.

INTRODUCTION

The Thematic Community Service Program (KKNT) is one of the experiential learning activities that directly engage with the community. This program is initiated by a university for students who meet specific criteria. The KKNT activity was first conceptualized and implemented by Gadjah Mada University (UGM) in 1971/1972. However, similar activities had been established in preceding years. From 1951 to 1962, Gadjah Mada University dispatched volunteer students to teach and establish high schools outside of Java, with 1218 students involved and 109 high schools successfully established on islands beyond Java (<https://kkn.ugm.ac.id/>). This initiative was known as PTM (Pengerahan Tenaga Mahasiswa), which shares similarities in implementation with contemporary KKN programs. Both activities are aimed at engaging students with communities. Over the years, the KKN initiative, initially pioneered by UGM, has been adopted and implemented by various universities across Indonesia, both public and private. One such university is USU.

In 2023, specifically at the end of the even semester academic year, the University of North Sumatra (USU) organized the Thematic Community Service Program (KKNT), which could be participated in by students who fulfilled specified requirements. In the execution of this activity, participants were formed into several groups dispersed across various villages in several districts. The objective of this KKNT activity is to cultivate students who are resilient, independent, hardworking, responsible, and possess entrepreneurial spirit. Additionally, through the implementation of KKNT activities, students are expected to become more sensitive, empathetic, and caring towards humanity and the environment.

In 2023, the University of North Sumatra (USU) organized the Thematic Community Service Program (KKNT) during the end of the even-semester academic year. The program was open to students who met the specific requirements. Participants were divided into groups and sent to various villages in different districts. The main goal of the KKNT program was to develop resilient, independent, hardworking, responsible, and entrepreneurial students. Besides, the program aimed to make students more sensitive, empathetic, and caring towards humanity and the environment by engaging in different activities.

IMPLEMENTATION METHODS

One of the groups that was formed is called Group 55. They engaged in community service in Muka Paya Village, Hinai Subdistrict, Langkat Regency. The group conducted KKNT activities in Muka Paya Village for 35 days, starting from July 18, 2023, when they departed, until August 22, 2023, when they returned. The activities included counseling, training, and Q&A sessions. Before they started, the group members conducted site visits and observations. Based on their assessments, they designed programs to be executed in the village. During the implementation, they worked closely with the community, identifying the prevalent issues within the village as laypersons.

RESULT AND DISCUSSIONS

The implementers have spent around 35 days working hard to establish and complete various programs that were planned, as well as some new ones that were developed after recognizing the situation in the village they serve. One of these programs is the "Let's Learn at the Mini Library" activity, which was introduced to the students during socialization and teaching sessions at SDN 057214 Muka Paya. While conducting these sessions, the implementers noticed that many children in the school have severe educational deficiencies, with some even struggling to recognize letters despite being in the 5th grade. This further motivated the implementers to start the "Let's Learn at the Mini Library" activity, which was held in the afternoon at the KKNT-55 post under the guidance of the implementers.

The KKNT implementers carried out a tree-planting program, not only focusing on education but also aiming to achieve lush green environments. This activity was conducted jointly with two other KKNT groups, namely Groups 56 and 57, located in the Hinai sub-district. Greening efforts were also undertaken in Muka Paya Village by distributing tens of fruit seedlings to the local community. The programs and activities implemented in Muka Paya Village are as follows.

3.1 Let's Learn at the Mini Library

Learning is a process that involves an individual's effort to bring about behavioral changes, which may include gaining knowledge, skills, positive values, and attitudes from various sources (Djamaluddin, 2019:6). The quality of one's knowledge is directly proportional to the amount of learning they have done. The more one learns, the more they broaden their understanding and develops their thinking patterns. Through learning, we hope to improve the quality of human resources to support progress in life. To achieve this goal, the KKNT-55 implementers established the "Let's Learn at the Mini Library" program.

3.1.1 Purpose and Objective of the Activity

1. To enhance human resources through children, who are the nation's future generation.
2. To reduce illiteracy rates and assist children in understanding fundamental knowledge.
3. To foster children's interest in reading and learning.

3.1.2 The Benefits of the Activity

The implementation of the "Let's Learn at the Mini Library" activity has shown to increase children's interest in learning through engaging and creative teaching methods. This activity has helped decrease the illiteracy rate and further develop children's basic knowledge. Regular teaching sessions at the mini library have resulted in an increased attendance of children interested in learning. The activity focuses on teaching children how to recognize letters numbers, and improve their reading and writing skills. KKNT-55 implementers guide the

children in learning English, which they begin to enjoy. The enthusiasm of these children is a great benefit in cultivating high-quality human resources.

3.1.3 The Activity Location

The KKNT-55 post is located in Hamlet IV, Muka Paya Village, Hinai Subdistrict, Langkat Regency, North Sumatra.



Figure 1. Implementation of the 'Let's Learn at the Mini Library' Program

3.1.4 Implementation Schedule

The "Let's Learn at the Mini Library" activity program is one of the initiatives conducted in conjunction with the activities of the KKNT-55 implementers. It runs for several days during the 35 days of the KKNT activity implementation.

Table 1. Implementation Schedule of Activities

No	Date	Time
1	July 23, 2023	05.15 – 06.50 PM
2	July 24, 2023	03.30 – 05.20 PM
3	July 25, 2023	04.30 – 06.10 PM
4	July 27, 2023	03.05 – 03.55 PM
5	July 28, 2023	03.55 – 05.50 PM
6	July 29, 2023	03.25 – 05.55 PM
7	August 03, 2023	03.30 – 04.55 PM
8	August 04, 2023	03.55 – 04.40 PM
10	August 08, 2023	03.40– 06.20 PM

3.1.5 Analysis of Workload Volume

Table 2. Workload Volume

Activity	Target Audience	Estimated time	Persons in charge
Let's Learn at the Mini Library	Children / Students	50-160 minutes	All members of KKNT-55

3.1.6 Evaluation and Follow Up

During the implementation of our program, we discovered that children are not receiving enough attention and guidance at both home and school. Even at the junior high school level, there were many individuals who were still illiterate. This is due to the lack of support and attention from parents and schools. In order to address this issue, schools should revise their teaching methods and parents should monitor their children's educational progress more closely. We suggest that children who are unable to read or recognize letters at a 1st-grade level should not be promoted to the next grade. This would increase parental attention and encourage the child to work harder towards their education.

3.2 Socialization of Bullying Prevention for Students of SDN 057214 Muka Paya

Every organization, association, and community can be guilty of ostracizing its members, whether it is done consciously or unconsciously, subtly or overtly. This behavior is commonly known as bullying. According to Sejiwa (quoted in Santoso et al., 2017:324), bullying is when someone uses their power to harm an individual or group, whether it's through verbal, physical, or psychological means, causing the victim to feel oppressed, traumatized, and powerless. In essence, bullying can have a significant impact on the mental health of its victims. Due to the lack of awareness about the importance of mental health among elementary school children in the village, it is necessary to include mental health socialization as one of the work programs of Group 55.

3.2.1 Purpose and Objectives of the Activity

1. Providing elementary school children with an understanding of the importance of comprehending laws and adhering to applicable legal regulations.
2. Cultivating early awareness of the necessity to avoid engaging in bullying behavior in daily life.

3.2.2 Benefits of the Activity

This activity aims to motivate the students of SDN 057214 Muka Paya towards preventing bullying. Bullying can cause damage to moral attitudes within both school and family environments. Prevention efforts are not just reactive to incidents but are initiated beforehand by all parties involved in shaping a child's character. Therefore, these efforts are undertaken to avoid discrimination that can impact an individual. Moreover, this activity incorporates games to provide lessons on cooperation, tolerance, and respect towards others.

3.2.3 Purpose and Objectives of the Activity



Figure 2. Socialization of Bullying Prevention for Students of SDN 057214 Muka Paya

This activity was conducted at SDN 057214 Muka Paya Village, Hinai Subdistrict, Langkat Regency.

3.2.4 Implementation Time

Every organization, association, and community can be guilty of ostracizing its members, whether it is done consciously or unconsciously, subtly or overtly. This behavior

Table 3. Implementation Schedule of Activities

No	Date	Time
1	July 24, 2023	08.00 AM – 12.30 PM
2	July 25, 2023	08.00 AM – 12.30 PM

3.2.5 Analysis of Workload Volume

Table 4. Workload Volume

Activity	Target	Estimated time	Persons in charge
Bullying prevention socialization	Children/Students	120 minutes per class	All members of KKNT-55

3.2.6 Evaluation and Follow Up

During this activity, we discovered that several incidents of bullying had occurred among students, whether intentionally or unintentionally. We came across several cases where students had developmental delays in their thinking processes, ranging from difficulty in reading to struggles with communication. Therefore, we emphasized the importance of understanding the harmful effects of bullying, particularly for the victims. In addition, we guided bullying victims on how to integrate with their environment and stop isolating themselves.

3.3 Tree Seedling Planting

To help create a greener earth, the KKNT-55 team collaborated with two other groups located in the same sub-district. Together, they planted seedlings at the sub-district office.

3.3.1 Purpose and Objectives of the Activity

1. Preserving and conserving natural ecosystems to maintain their well-being.
2. Reducing air pollution in the surrounding area to ensure clean air.
3. Preventing floods and erosion disasters.
4. Mitigating the scorching heat of the sun's rays for humans.

3.3.2 Benefits of the Activity

Tree planting has numerous benefits, including maintaining ecosystem balance, creating a greener planet, and sustaining the lives of living organisms. It is an effective way to minimize air pollution and reduce the increase in Earth's temperature. By planting more trees, we contribute to a healthier planet and a better quality of life for all living beings.

3.3.3 The Activity Location

Hinai Subdistrict Office (52 Medan - Tanjung Pura Street, Kebun Lada, Hinai Subdistrict, Langkat Regency, North Sumatra).



Figure 3. Tree Seedling Planting in Hinai Subdistrict with Local Officials and Field Supervisors (Field Supervising Lecturers)

3.3.4 Implementation Time

The tree seedling planting activity took place on August 11, 2023, from 09:00 to 12:00 WIB.

3.3.5 Analysis of Workload Volume

Table 5. Workload Volume

Activity	Target	Estimated time	Responsible person
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Tree Seedling Planting	Hinai Subdistrict Office	180 Minutes	All members of KKNT-55
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3.3.6 Evaluation and Follow Up

While implementing the work program, we discovered that the Muka Paya Village community already has fruit trees, but they are of inferior quality. This leads to small-sized and imperfect-tasting fruits. To solve this issue, we have placed two orders for superior seedlings - one for planting at the sub-district office and another for distribution to residents.

3.4 Hydroponic Cultivation

The development of agriculture with hydroponic systems is considered one of the effective methods to maximize land use as hydroponic systems do not require extensive land. Cultivating agricultural products such as vegetables using hydroponic systems is deemed more efficient in terms of land utilization. In addition to land-related benefits, hydroponic cultivation also contributes to reducing air pollution, especially in hydroponic systems that use water as a medium. Therefore, the KKNT-55 implementers have created and disseminated information about hydroponic cultivation to residents.

3.4.1 Purpose and Objectives of the Activity

1. Providing understanding on managing hydroponic agriculture using water as a medium to the community.
2. Assisting the community in enhancing food quality through self-production.
3. Assisting the community in converting land into vegetable farming areas.

3.4.2 Benefits of the Activity

This activity holds significant benefits for the community. Through this activity, the community will understand how to manage hydroponic agriculture using water as a medium. With this understanding, the community will create a healthy kitchen with self-produced food ingredients.

3.4.3 The Activity Location

The KKNT-55 post is located in Hamlet IV, Muka Paya Village, Hinai Subdistrict, Langkat Regency, North Sumatra.



Figure 4. Aquaponics Construction with Residents of Muka Paya Village

3.4.4 Implementation Time

The hydroponic cultivation activity with residents was conducted on August 18, 2023, from 4:20 PM to 6:30 PM WIB.

3.4.5 Analysis of Workload Volume

Table 6. Workload Volume

Activity	Target	Estimated time	Responsible person
Hydroponic Cultivation	Residents of Muka Paya Village	130 Minutes	All members of KKNT-55

3.4.6 Evaluation and Follow Up

During the implementation of the activity, we found that only a few residents were interested and attended the hydroponic cultivation activity. Therefore, it is encouraged and recommended to the attending residents to willingly share their experiences with other residents in Muka Paya Village.

3.5 Cleanliness Mutual Cooperation

To improve the local community's welfare regarding environmental cleanliness, the implementing group organized a mutual cooperation (gotong royong) to clean the local environment. We initiated this activity by cleaning the area around the post, starting from collecting trash to clearing grass on public roads.

3.5.1 Purpose and Objectives of the Activity

1. Creating a clean and comfortable environment.
2. Preventing Dengue Fever (DBD) outbreaks caused by stagnant water and waste piles.

3.5.2 Benefits of the Activity

The benefits of this activity include the creation of a clean and comfortable environment for the KKNT-55 implementers and the surrounding residents. Additionally, this activity can minimize and prevent Dengue Fever (DBD) outbreaks in the community.

3.5.3 The Activity Location

The environment around the KKNT-55 post in Hamlet IV, Muka Paya Village, Hinai Subdistrict, Langkat Regency, North Sumatra.



Figure 5. Mutual Cooperation in Cleaning the Environment around the KKNT-55 Post

3.5.4 Implementation Time

This activity was conducted on July 19, 2023, from 1:10 PM to 3:40 PM WIB.

3.5.5 Analysis of Workload Volume

Table 7. Workload Volume

Activity	Target	Estimated time	Responsible person
Mutual Cooperation in Cleaning	The environment surrounding the KKNT-55 post	150 Minutes	All members of KKNT-55

3.5.6 Evaluation and Follow Up

The lack of equipment owned by KKNT-55 participants was the main obstacle in this activity. To address this issue, the implementers borrowed the necessary equipment from the surrounding residents.

3.6 Teaching General Knowledge and National Insight

General knowledge is information known by everyone or the majority of people, typically related to a community where the term is commonly used. General knowledge is not limited to a specific field, such as science or history, but can encompass various broad areas, including knowledge about the entertainment world. General knowledge often does not require references or citations. Octaviana and Ramadhani (2021:144) stated that knowledge is the primary source of a nation's civilization, whether it advances or not, and begins with society's attention to scientific knowledge. This is evidenced by various world civilizations that have made this country increasingly civilized, based on the personality thoughts at that time. National insight means a conception of perspective grounded in self-awareness as a citizen of a country regarding oneself and one's environment in national and state life.

3.6.1 Purpose and Objectives of the Activity

1. Teaching general knowledge and national insight to MTS Al Hidayah Muka Paya.
2. Providing understanding about the impact of internet usage.

3.6.2 Benefits of the Activity

Through this activity, students will somewhat understand the impacts of internet usage. Understanding the impacts of internet usage is also directly related to general knowledge and national insight, which can be accessed directly from the internet.

3.6.3 The Activity Location

The activity took place at MTS Al Hidayah in Muka Paya Village, Hinai Subdistrict, Langkat Regency, North Sumatra.



Figure 6. Teaching general knowledge and national insight and socialization of "Juvenile Delinquency"

3.6.4 Implementation Time

This activity was conducted on August 7, 2023, from 8:00 AM to 1:30 PM WIB.

3.6.5 Analysis of Workload Volume

Table 8. Workload Volume

Activity	Target	Estimated Time	Persons in charge
Teaching general knowledge and national insight	Students of MTS Al Hidayah Muka	08.00 AM – 01.30 PM	All members of KKNT-55

3.6.6 Evaluation and Follow Up

The lack of facilities and infrastructure, such as the unavailability of InFocus, posed some difficulties for participants of KKNT-55 in carrying out this program. Teaching, which should have used InFocus as a delivery medium, had to be replaced with a whiteboard and verbal explanations without displaying related materials.

3.7 Pawnshop Socialization – SME Capital

Pawnshop is a state-owned enterprise (SOE) that lends money by accepting items as collateral from borrowers. Typically, these items include jewelry (gold) or household items (electronic goods, property certificates, and others). It provides quick funding solutions for business development or unexpected needs through pawn-based loans and fiduciary financing. Despite the definite benefits of pawnshops, the community must still be discerning in choosing pawnshop services because not all pawnshops offer the same benefits, losses, or returns. Therefore, KKNT-55 participants collaborating with the pawnshop team provide socialization on the proper procedures for selecting and pawning items.

3.7.1 Purposes and Objectives of the Activity

1. Providing understanding about pawnshops and the correct way to choose a pawnshop.
2. Offering alternatives for MSME capital besides borrowing funds.
3. Providing understanding to the community about how to avoid illegal pawnshops.

3.7.2 Benefits of the Activity

The benefits of this outreach activity include the cultivation of a prudent mindset among the community, enabling them to make informed choices in selecting legal and advantageous pawnshops.

3.7.3 The Activity Location

The Village Office of Muka Paya, District of Hinai, Langkat Regency.



Figure 1. Pawnshop Socialization - SME Capital in cooperation with pawnshop experts.

3.7.4 *Implementation Time*

The socialization activity was conducted on July 31, 2023, from 3:35 PM to 4:20 PM.

3.7.5 *Analysis of Workload Volume*

Table 9. Workload Volume

Activity	Target	Estimated time	Persons in Charge
Socialization on pawnshops	SME capital Muka Paya village community	50 minutes	All members of KKNT-55 and pawnshop team

3.7.6 *Evaluation and Follow Up*

The lack of understanding and experience regarding pawnshops necessitated KKNT-55 organizers to invite speakers directly associated with pawnshops. These speakers then elaborated in detail on the procedures, benefits, and addressed questions related to pawnshops from the community.

3.8 *Enlivening the August 17, 2023 Celebration Program in Muka Paya Village*

The Independence Day of Indonesia, which falls on August 17th, is a historic day for the Indonesian nation. Just as someone eagerly celebrates their birthday, we as Indonesian citizens must also enthusiastically celebrate the birth or independence day of our nation. To achieve this, the KKNT-55 implementers have designed and participated with the community in organizing various types of competitions. These competitions are intended to foster cooperation and solidarity among the residents of Muka Paya Village.

3.8.1 *Purposes and Objectives of the Activity*

1. Building community solidarity through collaborative participation in activities (competitions).
2. Preserving the festivity of Indonesian Independence Day celebrations.

3. Fostering nationalism, nurturing a sense of unity and solidarity among village residents, and preserving and appreciating the historical values of Indonesian independence.

3.8.2 *Benefits of the Activity*

The benefits of conducting this activity include the establishment of good relationships among community members. Through the collaboration formed during the competitions, the community will become more united in advancing Muka Paya Village.

3.8.3 *The Activity Location*

The celebration of Indonesian Independence Day took place in Hamlet IV, Muka Paya Village, Hinai District, Langkat Regency.



Figure 7. Celebration of the Indonesian Independence Day with the residents of Muka Paya Village

3.8.4 *Implementation Time*

The event took place on August 20, 2023.

3.8.5 *Analysis of Workload Volume*

Table 10. Workload Volume

Activity	Target	Estimated time	Persons in charge
Celebration of Indonesian Independence Day	Residents of Muka Paya village	09.30 AM – 05.30 PM	All members of KKNT-55

3.8.6 *Evaluation and Follow Up*

The multitude of activities/competitions and participants resulted in the committee - in this case, the implementers of KKNT-55 - being slightly overwhelmed, leading to many activities being assisted and handled by village officials along with surrounding residents. This also facilitated the committee members to participate in the competitions alongside the villagers.

3.9 **Farewell Night**

After engaging in various activities with the residents for 32 days, a sense of camaraderie was forged between the implementers of KKNT-55 and the residents of Muka Paya Village. The implementers experienced the joys and sorrows of living in Muka Paya Village, just as the residents did. Mutual assistance, cooperation, and enjoying activities or entertainment together with the residents became a binding factor between both parties. As the saying goes, "every encounter inevitably leads to parting," so it was with the KKNT activities. Eventually, the participants had to bid farewell to the residents. To commemorate the togetherness and express all the joys and sorrows, the implementers of KKNT-55 organized a "farewell evening" activity with the residents.

3.9.1 Purposes and Objectives of the Activity

1. Strengthening social relations between the community and the village government, honoring the participation and contribution of residents in village development.
2. Fostering a sense of togetherness and unity among village residents, as well as creating a more friendly and positive atmosphere within the community.

3.9.2 Benefits of the Activity

The benefit of this activity is to provide a final impression and message between the community and the KKNT-55 implementers. Through the conduct of this activity, the KKNT-55 implementers also receive evaluations as well as impressions and messages from the village officials who acted as guardians during their stay in Desa Muka Paya.

3.9.3 The Activity Location

This activity is conducted at the KKNT-55 outpost in Muka Paya Village, Hinai District, Langkat Regency.

3.9.4 Implementation Location

The activity took place on August 20, 2023, from 8:30 PM to 10:50 PM.

3.9.5 Analysis of Workload Volume

After engaging in various activities with the residents for 32 days, a sense of camaraderie.

3.9.6 Evaluation and Follow Up

Due to the unfavorable weather conditions, the farewell night event could only be attended by a few villagers. Heavy rain pouring down made it difficult for the community to gather at the KKNT-55 post. Despite this, the farewell event proceeded as planned with only a few village officials and residents in attendance.

CONCLUSIONS AND RECOMMENDATIONS

The community has reaped many benefits from the various service activities organized by the school. For instance, the library's mini learning activities, which include guidance sessions, have kindled a renewed interest in reading and writing among children. Similarly, the anti-bullying campaigns aimed at elementary school students have been instrumental in educating them

about the dangers of bullying. Furthermore, the hydroponic cultivation workshops have taught the community about the principles of hydroponic farming using water as a medium. The enthusiastic participation of community members, students, and faculty underscores the significance of these activities. It is highly recommended to continue organizing such activities in the future to further enhance the community's quality of life.

REFERENCES

- Ainun Jamiluddin, Ari Affandy, D. (2021). *Pelatihan Pembuatan Hidroponik Sederhana Di Lingkungan Desa Jenetaesa, Kecamatan Simbang, Kabupaten Maros*.
- Muslimin. (2019). Penumbuhan Budaya Literasi Melalui Peningkatan Minat Baca Masyarakat Desa. *Cakrawala Pendidikan*, 37(1), 107-118.
- ZAKIYAH, E. Z., HUMAEDI, S., & SANTOSO, M. B. (2017). Faktor Yang Mempengaruhi Remaja Dalam Melakukan Bullying. *Prosiding Penelitian Dan Pengabdian Kepada Masyarakat*, 4(2), 324-330. <https://doi.org/10.24198/jppm.v4i2.14352>