

Julduz 5

by Juldus Paus

Submission date: 23-Dec-2022 03:45PM (UTC+0700)

Submission ID: 1986130454

File name: Paus_KI_Educating_and_mentoring_o....pdf (853.66K)

Word count: 3109

Character count: 17268

PAPER · OPEN ACCESS

Educating and mentoring of broiler intensification programs through KKN-PPM activities for the community of Talise Village, Likupang Barat Subdistrict, North Minahasa Regency

To cite this article: R A Mege *et al* 2019 *J. Phys.: Conf. Ser.* **1387** 012061

View the [article online](#) for updates and enhancements.

You may also like

- [Planting distance and tuber size affected the productivity of Lansuna local variety of red onion \(*Allium ascalonicum* L.\)](#)
O G Tandil, M Lintang and Yusuf
- [Towards sustainable cultural landscape: A challenge in developing ecomuseum in Minahasa Region](#)
C E V Wuisang, J Rengkung and D M Rondonuwu
- [Contribution of pig farming to household in Tenga Subdistrict, South Minahasa District](#)
M A V Manese, N M Santa and E P Bukanaung

ECS Toyota Young Investigator Fellowship



For young professionals and scholars pursuing research in batteries, fuel cells and hydrogen, and future sustainable technologies.

At least one \$50,000 fellowship is available annually.
More than \$1.4 million awarded since 2015!



Application deadline: January 31, 2023

Learn more. Apply today!

Educating and mentoring of broiler intensification programs through KKN-PPM activities for the community of Talise Village, Likupang Barat Subdistrict, North Minahasa Regency

R A Mege¹, J R Paus², J Mantiri³ and A A Maramis¹

¹ Department of Biology, Faculty of Mathematics and Natural Sciences, State University of Manado (UNIMA), 95618 Minahasa, Indonesia

² Department of Out of School Education, Faculty of Educational Sciences, State University of Manado (UNIMA), 95445 Tomohon, Indonesia

³ Department of Public Administration, Faculty of Social Sciences, State University of Manado (UNIMA), 95618 Minahasa, Indonesia

Abstract. A community service activity, Kuliah Kerja Nyata – Pembelajaran Pemberdayaan Masyarakat (KKN PPM) in Talise Village, Likupang Barat District, North Minahasa Regency, has been well implemented. The activities aim to provide education and assistance to the community through the application of intensified chicken livestock technology. The target community groups are groups of school-age children (junior high school students and school dropouts) and adult groups. The method used for groups of adults is a combination of methods of applying science and appropriate technology with the adult learning approach (Andragogics), while for groups of school age children using the Scientific Learning approach by utilizing the school yard as a laboratory and learning resource for students. The results achieved are, the community and students get knowledge and skills about: 1) technology for processing alternative animal feed ingredients; and 2) livestock health control technology. Through this activity it has also been facilitated efforts to meet the needs of animal food consumption and increase family economic income.

1. Introduction

Talise is one of a series of small islands located in the West Likupang Subdistrict, North Minahasa Regency, with its parent village is Talise Village (Figure 1). In further developments the village has been divided into four villages namely Talise Village, Talise Satu Village, Tambun Village and Kinabuhutang Village, which were previously known as hamlets. Generally, rural communities living in coastal areas with abundant marine resources depend their lives as fishermen. However, this is not the case for the people on Talise Island. The fact is that only a small number are fishermen with a high poverty rate (35%). The main reason coastal communities in Talise Island cannot fully pursue fishing business because they are naturally confronted with the big waves of the Pacific Ocean, so that they can only go to sea half the time (5-6 months) in a year.

This fact prompted some villagers on the Talise Island, from a long time ago, at a certain time, to find work outside the village such as working as construction workers, factory workers, and other jobs that did not require special expertise. Meanwhile, some who have not been able to rely on physical strength to work, remain in the village run businesses such as farming and raising livestock (broilers and other



Content from this work may be used under the terms of the [Creative Commons Attribution 3.0 licence](https://creativecommons.org/licenses/by/3.0/). Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

local livestock). However, the business being run is low in productivity so that it has a significant impact on the low economic income of the family and the high level of poverty.

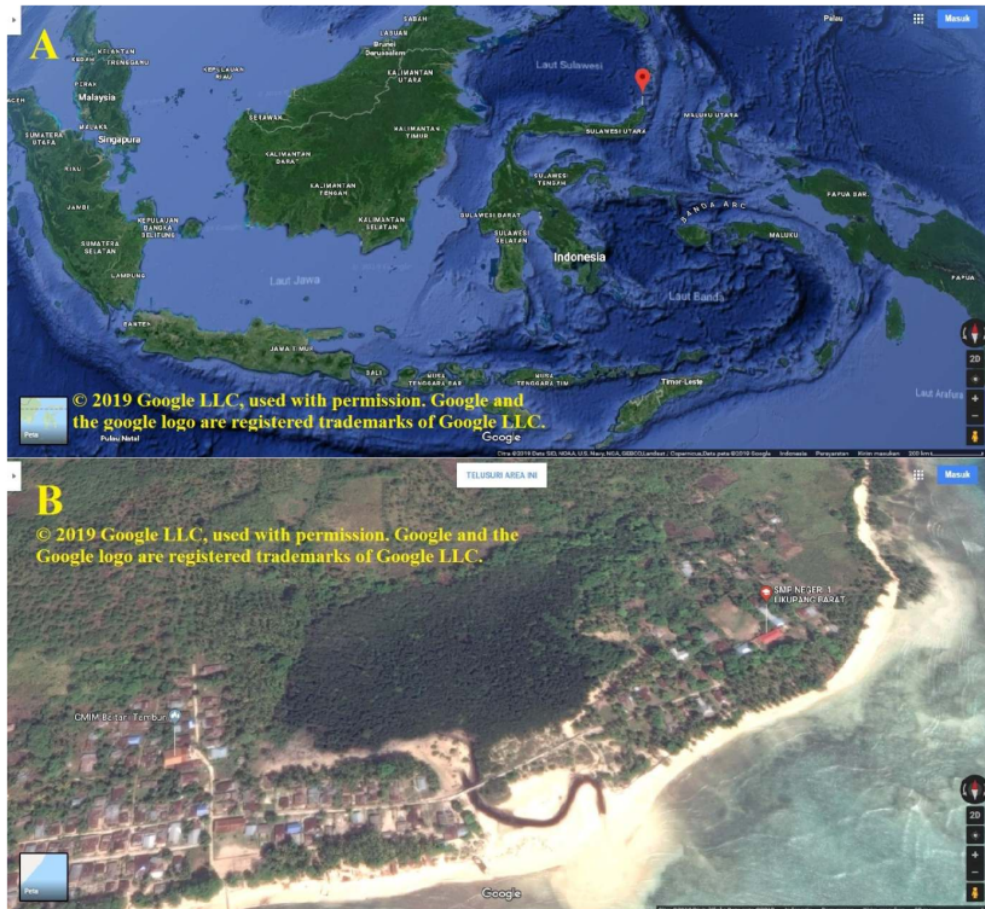


Figure 1. Location of activities implementation, in: A) map of Indonesia (red location marker is the location of Talise Island, which looks directly opposite with the Pacific Ocean); and B) map of the southern part of Talise Island (red location marker is the location of SMP Negeri 1 Likupang Barat, where KKN-PPM activities are held).

The development of human resources, especially school-age children, is also affected by the implications of this series of problems. The number of school-aged children who cannot continue their education is high. In fact, on the one hand, natural resources are available in the form of extensive land that can be utilized both as a place for integrated livestock farming as well as natural laboratories and learning resources. In *SMP Negeri 1 Likupang Barat* (public junior high school), there is a vast area of land up to 2 ha, which can be utilized to help alleviate the cost of schooling for underprivileged children, to support the improvement of learning facilities and infrastructure, and to become a source of learning in improve students' knowledge, attitudes and skills.

The complexity of the problems faced by the community made the team from the Institute for Research and Community Service (LPPM), State University of Manado (UNIMA) called upon to provide a solution as well as a form of implementation of the higher education *tridharma* mission.

Solutions provided packed in the form of a program called *Kuliah Kerja Nyata-Pembelajaran Pemberdayaan Masyarakat* (KKN-PPM). *Kuliah Kerja Nyata* (KKN) is a concept of linking academic study with the practical experience of community service [1]. The KKN-PPM program is a KKN in the form of community service activities (one of three missions, in the *tridharma* of higher education in Indonesia) which emphasizes the concept of community learning and empowerment. This program is competed and funded by the Directorate of Research and Community Service, Directorate General of Research and Development Strengthening, Ministry of Research, Technology and Higher Education, Republic of Indonesia. Solutions were given to the two target groups in Talise Village, adults and school-age children. Solutions in the form of education and empowerment for the adult community are carried out by introducing broiler intensification technology, with debriefing materials covering: 1) general knowledge about livestock; 2) production process; and 3) production management. Meanwhile, for school-age children, which are focused on *SMP Negeri 1 Likupang Barat* students, the solution is given in the form of education and empowerment by utilizing the natural resources available around the school as real learning media especially science subjects, as well as character education models.

2. Methods

2.1. Preparation of the activities

The subject of KKN is a compulsory subject for all students in UNIMA and has been stipulated in the Academic Guidelines that the KKN implementation is contracted in the *Kartu Rencana Studi* (KRS, Study Plan Card) in the 7th or 8th semester. The mechanism for implementing the KKN-PPM also refers to guidelines and procedure manuals starting from the recruitment of KKN-PPM student participants to administration as required by LPPM UNIMA. In the recruitment of students participating in the KKN-PPM program special criteria are also set which are based more on the suitability of the problems and programs implemented so that students who have basic scientific competencies are needed to run the program. Furthermore, preparation of student strengthening material was carried out to empower adult communities in the form of theories about livestock cultivation. For school-age children group, learning materials are also prepared especially related to the use of life skill programs in livestock farming by utilizing the school yard as a learning medium. Other preparation is the provision of materials and tools related to activities to overcome problems in the community.

Strengthening was emphasized more on the introduction of the scope of work involved during the KKN-PPM period especially the initial information on the work process that will be faced together with the target community groups (Figure 2). As for the material: 1) introduction and application of formulation technology of quality feed based on biological resources which are available locally; 2) intensification of broiler technology, which emphasizes the introduction of biosecurity for livestock businesses in maintaining health through the use of available natural materials; and 3) strategies for designing of learning technology using a scientific learning approach through broiler farming on school-owned land for science subjects and character education especially in order to foster entrepreneurial spirit in school-age children.

2.2. Implementation of the activities

The activity begins with socialization as one of the important stages in conveying matters relating to the KKN-PPM program before students are deployed to the location. In the socialization stage, the emphasis was on equalizing the perceptions between the implementers of the KKN-PPM and the target group's community about efforts to overcome the problems faced by the community and the technology implemented through the presence of KKN-PPM participating students.

The approach method applied to the target group of adult society is a combination of methods for the application of appropriate technology for broiler livestock business with adult learning techniques (andragogics) [2]. As for the target group of school-age children, the "Scientific" learning approach is used in the application of livestock business technology to use the school yard. For the implementation

of activities in the group of school-age children in *SMP Negeri 1 Likupang Barat*, KKN students in addition to carrying out activities in the field, are also involved in teaching and learning activities.

The operational steps of student activities together with the target community of KKN-PPM activities include socialization, counseling, education and mentoring of broiler intensification programs. Socialization is more emphasized in efforts to introduce technology that is applied to the community, especially the delivery of information on the use of marginal land, residential yard, and school yard. Counseling is more emphasized in the transformation of science and technology as a form of problem solving in meeting the needs of the community, both for daily food consumption and for economic improvement in addressing children's school needs. For education and assistance, especially for school-age children, activities carried out starting from the introduction of broiler cultivation, processing of feed, to controlling the health of livestock by utilizing local biological potential. Furthermore for the adult community, the activities carried out by KKN-PPM students and field supervisors are to educate the target community about the knowledge and techniques of processing alternative feed ingredients using the potential of locally available biological resources.



Figure 2. Documentation of the implementation of activities: A) initial survey at *SMP Negeri 1 Likupang Barat*; B) strengthening activities of KKN at the university level; C) strengthening activities of KKN-PPM at the faculty level; and D) KKN-PPM students go to the location by boat.

2.3. Evaluation of the activities

To further strengthen the performance of KKN-PPM participating students in achieving program objectives, a tiered evaluation is carried out. Evaluation of activities aims to assess the level of effectiveness of program implementation in achieving goals and objectives by making direct observations of the process of implementing activities.

3. Results and Discussion

3.1. Broiler intensification program in Talise Village

A community service activity through the KKN-PPM has been carried out in Talise Village, Likupang Barat Subdistrict, North Minahasa Regency, with the target group are adults and school-age children, especially students of *SMP Negeri 1 Likupang Barat* (Figure 3). The implementation of the KKN-PPM program has very diverse meanings, in addition to being one of the efforts to implement the

tridharma mission of the higher education, also specifically as a vehicle for applying science, technology and skills to the community, and learning for students to recognize and solve problems in the community. The KKN-PPM activity was initiated by a series of survey and socialization activities for the target group. In the socialization phase, harmonious communication was created between the implementers of the KKN-PPM and the target community and teachers of the *SMP Negeri 1 Likupang Barat*. Furthermore, in an effort to optimize the readiness of KKN students, a series of strengthening activities have been carried out, which are then transformed to the target group.



Figure 3. Documentation of community empowering: A-B) preparation of land clearing in the school yard; C) educational activities in the classroom; D-E) counseling on livestock cultivation for adult communities; and F-I) empowering school-age children about livestock cultivation.

In its implementation in the field, the community has been provided with theories that include: 1) general knowledge about livestock (introduction of housing facilities and equipment, feed formulation processes, introduction of feed ingredients, ways to calculate nutrient composition, and other activities related to feed production process); 2) the production process includes maintenance of starter / grower and finisher and post-harvest handling; and 3) production management (disease control and maintenance of livestock health, introduction of types of diseases and methods of prevention / control, maintenance of animal health and its environment, postharvest handling, and marketing).

3.2. Lesson learned from the activities

Productive business programmed in KKN-PPM activities is the development of livestock business on the school yard of *SMP Negeri 1 Likupang Barat*. In an effort to provide understanding to students, it is not only guided in theory but also in learning practices by being directly involved in the activities of making cages, up to the practice of introducing cultivation activities. Through KKN-PPM activities, it has been facilitated construction of 1 unit of broiler farming business installation with a production target of 500 animals. The first stage has been realized in the form of raising broilers as many as 100 chickens. It is estimated that the net production value that can be obtained from the first stage of

broiler harvest reaches Rp. 4,000,000. From the results of the first phase of the harvest, it was agreed that it would be used as additional financing capital for the second stage of maintenance with a wider target market. This activity has directly provided a solution in an effort to fulfill the meat consumption needs, especially on religious holidays in December 2018.

The introduction of micro-enterprises of broiler livestock in addition to being a medium of learning for science subjects with a scientific approach is also a medium in economic learning and instills an entrepreneurial spirit for students. Students can manage the results for the development of the sustainability of the business. No less important benefit is that aside from obtaining business capital, it can also be set aside to provide learning support facilities such as books and other learning facilities, especially to help poor students. The target community greatly benefited from education and mentoring activities. Community empowerment in Talise Village repeats the success of previous community empowerment activities [3-9]. People who initially tend to be consumeristic are slowly turning productive. The livestock business activities carried out on land owned by *SMP Negeri 1 Likupang Barat* seemed to be a pilot project because people from other villages not included in the target group were motivated because of the success achieved.

3.3. Follow up plan as program sustainability

Basically the KKN-PPM program has been running well. It can be seen from the achievement indicators as follows: 1) it has been facilitated the effort to utilize the school yard for broiler cultivation, besides as a production activity it also becomes a scientific learning media for Natural Sciences subjects and instills entrepreneurial character for students of *SMP Negeri 1 Likupang Barat*; and 2) it has been facilitated the effort to improve the welfare of the community through fulfilling food consumption needs and the needs of children's school fees. In order for this community empowerment program to run continuously, serious efforts from various parties are needed to help the community get out of poverty. Other programs and activities that have the potential to be followed up are facilitating the people's desire for chicken eggs. Until now, the needs of animal protein such as eggs for the people on Talise Island and surrounding small islands are still imported from the mainland of North Minahasa, mainly through the Likupang market.

4. References

- [1] Krisnawati L D 2009 Service-learning in Duta Wacana Christian University: past, present, and future states *New Horizons in Education* **57** 74–81
- [2] Suhud M A 2005 Andragogy approach in community development Aplikasi, *Jurnal Aplikasi Ilmu-ilmu Agama* **6** 1-13 [Indonesian]
- [3] Mege R A, Saerang J L P, Manopo J H and Maramis A A 2016 *Proc. 2nd Int. Conf. on Sustainable Development (Denpasar)* (Denpasar: Maharaswati University)
- [4] Mege R A, Saerang J L P, Manopo J H and Maramis A A 2016 *Proc. Nat. Sem. on Results of Research and Community Service (Denpasar)* (Denpasar: Maharaswati University)
- [5] Mege R A, Saerang J L P, Umboh S J K, Maramis A A 2016 *Proc. Nat. Sem. Expo on Results of Community Service (Medan)* (Medan: State University of Medan)
- [6] Saerang J L P, Umboh S J K, Maramis A A and Mege R A 2016 *Proc. Nat. Sem. on Results of Research and Community Service (Denpasar)* (Denpasar: Maharaswati University)
- [7] Maramis A A, Mege R A, Saerang J L P and Manopo J H 2016 *Proc. 2nd Int. Conf. on Sustainable Development (Denpasar)* (Denpasar: Maharaswati University)
- [8] Maramis A A, Mege R A, Saerang J L P and Manopo J H 2016 *Proc. Nat. Sem. on Results of Research and Community Service (Denpasar)* (Denpasar: Maharaswati University)
- [9] Maramis A A, Mege R A, Saerang J L P and Manopo J H 2016 *Proc. Nat. Sem. Expo on Results of Community Service (Medan)* (Medan: State University of Medan)

Acknowledgments

The authors would like to thank the Directorate of Research and Community Service, Directorate General of Research and Development Strengthening, Ministry of Research, Technology and Higher Education for financial support through Community Service Program (KKN-PPM scheme) 2018.

Julduz 5

ORIGINALITY REPORT

10%

SIMILARITY INDEX

10%

INTERNET SOURCES

4%

PUBLICATIONS

3%

STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

4%

★ Sugiyarto, B Hariono, P Destarianto, M Nuruddin.
"Determination of Water Quality Status at Sampean
Watershed Bondowoso Residence Using Storet
Method", Journal of Physics: Conference Series, 2018

Publication

Exclude quotes On

Exclude matches < 4 words

Exclude bibliography On