APPLICATION OF ORGANIC AGRICULTURE IN THE SUKUN DISTRICT MALANG CITY AS A STRATEGY FOR HEALTH AND ENVIRONMENTAL EDUCATION

by Kukuk Yudiono

Submission date: 13-Dec-2021 06:40PM (UTC+0700)
Submission ID: 1729057833
File name: 1._ESL-Full.pdf (1.06M)
Word count: 3770
Character count: 21992

PROCEEDING INTERNATIONAL CONFERENCE ON ENVIRONMENT AND HEALTH : "INTEGRATING RESEARCH COMMUNITY OUTREACH AND SERVICE LEARNING"

Soegijapranata Catholic University Press
Pawiyatan Luhur Street IV/1, Bendan Dhuwur, Semarang, Central Java, Indonesia
Phone. (+62) 24-8316142-441555 (hunting), ext. 121, Fax. (+62) 24-8415429, 8445265
e-mail : penerbitan@unika.ac.id

ISBN 978-602-8011-53-2

International Conference on Environment and Health

Integrating Research Community Outreach and Service Learning

At

Soegijapranata Catholic University,

May 22nd- May 23rd, 2013

Supported By:

Published By

Soegijapranata Catholic University Press

CONTENTS

WFE II Class

ESL Class

EDS I Class

EDM Class

APPLICATION OF ORGANIC AGRICULTURE IN THE SUKUN DISTRICT MALANG CITY AS A STRATEGY FOR HEALTH AND ENVIRONMENTAL EDUCATION

Kukuk Yudiono

Department of Agricultural Technology, Widya Karya Catholic University, Malang, Indonesia
amk_yudiono@yahoo.com

ABSTRACT

Entering the 21st century, a healthy lifestyle with the slogan Back To Nature has become the new trend of the world community. Communities are increasingly aware that the use of non-natural chemicals, such as fertilizers and synthetic chemical pesticides and growth hormones, in agricultural production, turned out to have a negative effect on human health and the environment. Organic farming is a farming system that uses very few synthetic chemical inputs or no chemical inputs. In other words, organic farming is designed to be a farming system which follows the principles of nature in order to establish a balance agro-ecosystem that will be beneficial to soil, water, air, plants and all existing living things (including pests) as well as providing healthy food. Currently on Sukun district Malang City there is Farmers Joint Group (Gapoktan) called "Mulyo Santoso" that is engaged in organic vegetable agribusiness field. Gapoktan "MulyoSantoso" is in charge of 2 (two) other farmers groups, namely "Sri Mulyo" and "Nusa Indah" comprising 173 farmers. This service learning (SL) is intended to improve the learning systems through active participation, as a good opportunity to apply skills and knowledge acquired in real life,broaden the horizons beyond the classroom, and is able to reflect on his experience and his work. Method of service learning include: Survey, Preparation and Planning, Live in, Reflection, and Mini Workshop. One of the important benefit sof service learning, especially for students is increasing awareness of the great value and sacrifice of organic farmers in protecting the environment and health food.

Keywords: *synthetic chemicals, organic agriculture, health and environment, service learning*

I. INTRODUCTION

As the world entered the 21st century, a lifestyle based on health concerns that carries with it the slogan “Back To Nature” has became the new trend of the world communities. Communities were increasingly aware that the use of non-natural chemicals, such as fertilizers and synthetic chemical pesticides and growth hormones in agricultural production, had turned oout to have negative effects on human health and the environment. Such a lifestyle has undergone international institutionalization, fulfilled in the global trade regulations which promote the guarantee that agriculture products must have food safety and eco labeling attributes. Organic vegetable products are included in the products that meet these attributes. Organic farming is a farming system that uses very few synthetic chemical inputs or no chemical inputs. The main feature of this farming system is to work in harmony with nature in order to yield healthy food products for humanity. In other words, organic farming is designed to be a farming system which follows the principles of nature in order to establish a balance agro-ecosystem that will be beneficial to soil, water, air, plants and all living things (including pests) as well as

providing healthy food. The principles of organic agriculture are based on: 1) Principles of Health; 2) Principles of Ecology; 3) Principles of Justice, and 4) Principles of Protection

Based on the results ofthe initial survey to the farmers who have adopted organic farming in the region of Malang thens et Sukun District as a service learning activity. The agricultural land in Sukun District experiences shrinkage due to the shift of much agricultural land into housing projects and shops, which is the general condition of agricultural land in urban areas. The narrowing of agricultural land as well as the increasing awareness of environmental sustainability, has encouraged some farmers of Sukun District to switch to developing organic vegetable cultivation. Currently on Sukun District, Malang City there is Farmers Joint Group (Gapoktan) called "Mulyo Santoso" that is engaged inorganic vegetable agribusiness field. This joint group of vegetables farmers was started in 2010, by its chairman Mr.Hary Soejanto who is one of the pioneer farmers in Malang. Gapoktan "Mulyo Santoso" is in charge of 2(two) other farmer groups, namely "Sri Mulyo" and" Nusa Indah" comprising 173 farmers. Efforts made in the agribusiness field of organic vegetables, such as at Kitri Ayu Kurnia Farm, has absorbed 12 labor who are all native of Sukun District, Malang and its neighboring areas. The existence of the business has confirmed Sukun District as the new site of organic vegetable producers.

This service learning (SL) is intended to improve the learning systems through active participation, as a good opportunity to apply skills and knowledge acquired in real life, broaden the horizons beyond the classroom, and is able to reflect on his experience and his work. For partners in this regard is Kitri Ayu Kurnia Farming Farm and Organic Farmers Group, we expect the spirit to play a role inreducing the negative impacton the environment and to improve the welfare and quality of life in work and business.

II. LITERATURE REVIEW

2.1. Service Learning In Education Health and Environmental Strategies

It is said that every step in the product lifecycle, from raw material extraction to final disposal, places the burden on the environment. It is therefore consider a service-learning project that can help mitigate the impact, like planting a vegetable garden to supply your school cafeteria and then compost leftover food scraps. The resulting compost could even be put back to help the vegetable garden grow (Edina SL, 2013). Through the environmental science project area like this, youths have the opportunity to learn and gain life skills, then use their new-found education and skills to improve their community through service learning (Schulz, 2012). The role of Higher learning is equated with ethical and honorable behavior and acceptance of the notion that the privilege of education also carries with it responsibility for the welfare for those not so privileged (Berry, 1999).

According to Flemming (2009) in Widianarko (2012) education is critical in the promotion of sustainable development and improving the capacity of people to address environmental and developmental issues. Education is also critical in achieving environmental and ethical awareness, values and attitudes, skills and behavior coherent with sustainable development, and for effective public participation in decision-making. Ward (1999) in Widianarko (2012) even stated that these two fields (environmental studies and service learning) have a natural fit. The combination of these two is frequently referred to as Environmental Service-Learning (ESL) (Madigan, 2000). Through this amalgamation, the notion of community is broadened, not only limited to human community but also embracing natural community. Further stated that through ESL students can see more clearly the impact of environmental neglect and policy implications of the witnesses at the grassroots level.ESL promising practices may include: (1) encourages youth leadership and decision-making; (2) integrates and values the community voice; (3) fosters civic stewardship; (4) provides opportunities for cross-cultural connections; and, (5) plans for the long-term sustainability.

2.2. Principles of Organic Farming on Health and Environmental Sustainability

a. Principles of health

Organic agriculture should sustain and enhance the health of soil, plants, animals, humans and the earth as a whole and indivisible. This principle suggests that the health of individuals and communities can not be separated from the health of ecosystems; healthy soil will produce healthy plants that can support the health of animals and humans. In particular, organic agriculture is intended to produce high-quality and nutritious foods that support health maintenance and welfare. Bear in mind though that organic agriculture should avoid the use of fertilizers, pesticides, medicines for animals and food additives that can affect the health farm (Jaker PO Indonesia, 2005; IFOAM, 2005).

b. Principles of ecology

Organic Agriculture should be based on ecological systems and cycles of life. Work, emulate and strive to protect ecological systems and cycles of life. Organic management must be adapted to the conditions, ecology, culture and local scale. Ingredients intake should be reduced by reuse, recycling and the management of materials and energy efficient in order to maintain, improve and protect the quality of the natural resources. Also in this principle should also be prudent in the use and management of water and soil. In practice organic farming should also be able to maintain clean air conditions and take advantage of existing biological diversity (Jaker PO Indonesia,2005; IFOAM, 2005).

c. Principles of protection

Organic agriculture should be managed carefully and responsibly to protect the health and welfare of current and future

generations and the environment. The perpetrators of organic agriculture encouraged to increased efficiency and productivity, but they should not endanger the health and well-being of the farm. Consequently, new technologies and methods that already exist need to be assessed and reviewed. Science is needed to ensure that organic agriculture is healthy, safe and environmentally friendly. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable technological consequences, such as genetic engineering. The use of additives and supplementary materials must be limited in processing (IFOAM, 2000; IFOAM, 2005).

3. METHODOLOGY

3.1 Selection of Students as participants

Sixteen (16) students of Agriculture Faculty as to six (6) students from Departements of Food Technology and ten (10) students from Departements of agribisnis. The recruitment of student was conducted through an announcement by Dean of Agriculture Faculty. The success of the recruitment was also supported by the fact that it was integrated in lecturer with subject Organic Agriculture System.

3.1. Investigation and Survey

Organic farming farmer groups in Malang were first Identified and surveyed, in order to establish an organic farm where the groups could hold service learning activities. Further exploration on the needs of the community/farmer groups and requirements for their selection are based on the following criteria: relevance to the curriculum, urgency of the interests, and capabilities of the resources.

3.2. Preparation and Planning

Activities include in this stage are initiating collaboration with partners and making a schedule for the implementation of service learning activities with said partners. After that a debriefing lecture on the topic previously established was held and participants were divided into groups. Each service learning group appoint a group leader. Finally, lecturers and students worked together to make the work program.

3.3. Live in

Student live at the combined farmer's garden belonged to Mulyo Santosa, located in Sukun District, Malang City. Students were divided into three groups of 5 or 6 each. Each group was assigned to work the land as much as 10 beds with bed size of 1.2 m x 5 m, which was planted three types of vegetables (red spinach, mustard meat, and spinach). Activities shared with the farmers include: cultivating the land, planting seeds, watering, maintenance, eradicating pests and plant diseases, harvesting, packaging and marketing. All activities avoided any residues of synthetic chemicals, both contained in the soil, water and use in the planting process. Students also practice creating their own seed, bokhasi

fertilizer, and natural pesticides. All activities were carried out using simple tools such as hoes, yells, bucket. The duration taken by these activities from land preparation, planting, crop maintenance to take approximately 25 days and was done everyday. The activity Interrupted every one week for evaluation and assessment by the field supervisor was was the organic farmers philosophy, which is: be patient, diligent, hard working, honest and animates.

3.4. Reflection

After of the live in activities were completed , the next stage was reflection activity. Basically the guide directed the student to reflect on three things: 1) recollection and sharing of what students had done during the study and during SL activities, 2) awareness, especially related to life as a (organic) farmer of the difficulty and nobleness of the farmers struggle in caring for their life and environment, and 3) commitment to support, implement and develop organic farming systems in our respective regions. The resulting joint commitment by the students is a strong desire to popularize organic farming their respective areas, as they are increasingly aware that organic farming system not only produces healthy food but can also save the earth from damage.

3.5. Mini Workshop

Mini-workshop activities are the activities of *service learning* exposure by students to local/organic farmer. The event activities include: 1) welcome speech by the chairman of service learning activity, 2) the presentation of SL by each students group (3 groups), 3) sharing session between students and organic farmers, and 4) impressions and advice provided by the representive of Sugijapranoto University, Semarang and Chairman Gapoktan Mulyo Santoso. In the event mini-workshop was attended by: 1) organic farmers, 2) chairman of Sri Mulyo farmer groups and members, 3) head of the Women Farmers group and members of the Nusa Indah, 4) head GapoktanMulyo Santoso, 5) representatives of the Department of Agriculture Malang, 6) students, 7) lecturer at the Faculty of Agriculture Widya Karya Catholic University, Malang , 8) Prof Budi Widianarko and Mr.Haryo from Soegijapranata Catholic University, Semarang.

4. RESULT

Results ofthe implementation of Service Learning (SL) by sharing participants, are summarized in Table 1.

Table1.Results Activities Service Learning

Activity	Result
1. Investigationa nd Survey: explorethe need and advantages of partners	✓ Universities connected with the community.
2. Preparation: debriefingand planning program	✓ Educate participants about the importance of organic farming to health and environmental sustainability

	✓ Critical thinking and logical
3. *Live in*: cultivation andpost-harvest	✓ Acquiring new skills is to work directly with the public ✓ Increase understanding of academic material ✓ Work with the community to help the participants aware of the strengths and weaknesses in person ✓ Understand that Organic Agriculture is not just aconcept in text books but must be applied in everyday life ✓ Improving soft skills such as team work,communication, leadership, self-confidence, sense of responsibility ✓ Service learning very enjoyable activity ✓ Increased empathy and awareness of participants on the weak ✓ Participants can learn, see, feel and appreciate the problems, the difficulties faced by the community
4. Reflection	✓ Increased student awareness of the values that made sublime organic farmers, particularly in preserving the environment and health food ✓ There was a shared commitment to the development of organic farming
5. Mini Workshop	✓ Getting feed back and suggestions are very valuable as stock if they will work primarily in agriculture ✓ Encourage participants so they are able and willing to try to open up business opportunities, participants are no longer looking for work(Job Seeker) but is capable of creating business opportunities (Job Creater)

Fig. 1. Land cultivation and Planting seeds

Fig.2. Visits monitoring team from Soegijopranoto University

Fig.3. Vegetable harvest activities and the implementation of the sorting

Fig.4.The cleaning process and process of draining

Fig.5. Weighing and Packaging

Fig.6. Reflection and the real development of organic farming to community

D. CONCLUSION

From the service learning activities that have been performed it can be concluded that:

1. For student service learning activities are learning method that is particularly useful for developing soft skills, which they do not get in a classroom learning and Increased student awareness of the values that made sublime organic farmers, particularly in preserving the environment and health food
2. Service learning activities have been integrated into the curriculum in FP-UKWK so that they are easier in implementation, despite still being a new learning method.

5. ACKNOWLEDGEMENT(S)

Acknowledgements submitted to the Soegijapranata Catholic University and United Board for Christian Higher Education in Asia which have financed the activities of Service Learning

6. REFERENCE

Berry, Howard A &Chilsom, Linda A., 1999. Service Learning in Higher Education Around the World An Initial Look. The International Partnership for Service Learning, New York, USA.

Edina, 2013. Environmental Service-Learning. Available from: http://edina.k12.mn.us/service-learning-edina/environmental-service-learning. Accessed April 23, 2013

IFOAM, 2000. Basic Standard for Organic Production and Processing.IFOAM General Assembly.Swiss.

IFOAM, 2005. Principles of Organic Agriculture.Adelaide.

Jaker PO Indonesia, 2005. Indonesian organic farming standards. Solo

Madigan, P., 2000. *The Environmental Service-Learning Research Project*. Washington DC: Corporation for National Service National Service Fellowship Program.

Schulz,Jody, 2012. Life skills, service learning and project areas: Seeing the connection. Available from: http://msue.anr.msu.edu/news/life_skills_service_learning_and_project_areas_seeing_the_connection. Accessed April 25, 2013

Widianarko, Budi, 2012. Service Learning in Environmental Sciences Nurturing Two Compatible Values.Graduate Program on Environmental and Urban Studies, Soegijapranata Catholic University (SCU).

APPLICATION OF ORGANIC AGRICULTURE IN THE SUKUN DISTRICT MALANG CITY AS A STRATEGY FOR HEALTH AND ENVIRONMENTAL EDUCATION

ORIGINALITY REPORT

10%	5%	5%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

1%

★ open.metu.edu.tr

Internet Source

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		