

## BIO-LINGUISTICS: PORTRAYING YOUNG FARMERS' ACQUISITION ON ORGANIC FARMING TERMINOLOGIES

Ida Bagus Nyoman Mantra<sup>1</sup>, Dewa Ayu Puspawati<sup>2</sup>, Ida Ayu Made Sri Widiastuti<sup>3</sup>, Nengah Dwi Handayani<sup>4</sup>

<sup>123</sup> Faculty of Teacher Training and Education, Mahasaraswati Denpasar University

*E-mail:* [bagusmantra@unmas.ac.id](mailto:bagusmantra@unmas.ac.id)<sup>1</sup>, [dwayupuspawati@unmas.ac.id](mailto:dwayupuspawati@unmas.ac.id)<sup>2</sup>, [idaayuwidia@unmas.ac.id](mailto:idaayuwidia@unmas.ac.id)<sup>3</sup>, [dwihandayani@unmas.ac.id](mailto:dwihandayani@unmas.ac.id)<sup>4</sup>,

### ABSTRACT

The covid-19 outbreak has widely changed the way of life for many people due to the limitation of crowd social contact. Young workers have to think harder to find employment meanwhile many industries including the tourism industry were closed. Farming suddenly becomes an attraction for young people to explore their opportunities for survival and fulfill their need for food. This phenomenon brightens the future of farming because young farmers certainly have more capability in developing the farming industry by utilizing modern applicable technology and develop farming products to supply the needs of the global market. This study explored the young farmers' acquisition of organic farming since this farming becomes a new trend that has many benefits for the future of farming and the health of the land. The study revealed that young farmers' acquisition of organic farming terminologies was insufficient, therefore the study implies that the young farmers should continually develop their ability in organic farming.

Keywords: young farmers, acquisition, organic, farming, terminology.

### INTRODUCTION

Bali is more famous for the development of the tourism sector where the island of Bali is the main tourist destination for most tourists. However, the island of Bali is also famous for its beautiful rice fields which are managed by farmers to produce food and also to attract tourists. During the Covid-19 pandemic, many tourist attractions were closed because there were no tourists coming to the island of Bali. This has resulted in many workers who do not work anymore and the number of unemployed is increasing. The young people switched to working in the fields again in order to get food. Their awareness of the importance of being a farmer is increasing. They are increasingly diligent in cultivating their fields and fields. Due to their lack of experience working in the rice fields, of course, they have encountered many obstacles. Especially about agricultural patterns from tillage to the planting process.

These young farmers generally have a desire to increase their agricultural production but because of the many problems they face because of lack of

knowledge and experience in farming. In addition, the problem is the narrow farming land in Bali because a lot of lands have become building sites for tourism purposes. Therefore, young farmers need to be smart in developing their farming activities to adequately supplement their food consumption. Various efforts had been done by young farmers from convention farming to more modern farming including hydroponic farming. It is interesting, however, some of them were keen on redeveloping organic farming which they claimed was their parents' traditional farming system. Since farming is a new thing which they have been doing for years, some of them attained unsuccessful produce as expected. However, as they are very eager to learn, the signs of success eventually emerging. This is because farmers have significant positive perceptions on their success to farming (Oyesola & Obabire, 2011). In addition, farmers usually have a good motivation to develop their farming skill (Peterson, et al, 2012)

With the attention of young people to carry out agricultural activities, it will

certainly improve the quality of agricultural development programs, especially in the areas of adequacy and flexibility. Thus, it is hoped that the condition of food in Indonesia both in quantity and quality continually increase so that it can meet its own food needs. Lately, we have tended to become increasingly dependent on imports of food products from abroad. The results obtained from the export performance of agricultural products are also considered not encouraging. The increase in imports of agricultural products tends to be greater than the rate of increase in exports, thus making it even more difficult for Indonesia to position itself in an era of global markets that are full of competition.

The growing number of young farmers is expected to be able to implement modern technology in agriculture. Lately, older farmers are experiencing many obstacles in carrying out agriculture with the latest technology. The main characteristics of modern agriculture are productivity, efficiency, quality, and continuity of supply which must always be improved and quality maintained. Our agricultural products, both food crops, and commodities must be of high quality and have certain standards (Hidayat, & Lesmana, 2011). Indonesia faces a tough market in the world and also in the ASEAN region. One of the reasons due to the insufficient use of farming technologies, because it is not all technologies can be applied in Indonesian farming conditions. The imported technologies must be modified, developed, and then applied to our agricultural systems. In this case, the role of young farmers is very important to innovate agricultural technology so that it can be used in land conditions in Indonesia.

Understanding the difficulties in agriculture, young farmers tend to choose organic farming patterns because their understanding of soil cultivation and the use of fertilizers is very lacking. This is very good for beginner farmers to understand soil conditions so that gradually they understand

the conditions of the soil and then be able to cultivate their land with more modern technology so that the agricultural products they produce will be of higher quality and be able to meet their food needs. Moreover, organic agricultural foods are considered healthier to consume. Therefore, it needs to be developed in Indonesia because it is known that Indonesia is an agricultural country, and developing an organic farming system may increase the quality of agricultural production (Mayrowani, 2012)

The organic farming system is a holistic and integrated production system, optimizing the health and productivity of ecosystems naturally and having the ability to supply sufficient quality of food (Ashari, et al, 2016). As a matter of reality, previous farmers, particularly in Bali island have enforced an organic farming system by utilizing organic waste from their crops and manure as a natural fertilizer. The agricultural system utilized by farmers within the past was an environmentally friendly agricultural pattern, that failed to use artificial fertilizers and pesticides. All fertilizers return from nature and don't interfere with the natural system of the land (Budiasa, 2010).

Broadly speaking, the benefits of organic agriculture may be classified into 3 categories, from an economic, ecological, and social perspective. If it's examined critically, from an economic purpose, this organic farming may scale back production prices in comparison to standard farming systems. Logically, the price of buying fertilizers, pesticides, and different farming requirements may be reduced as a result of organic fertilizers and pesticides are produced by the farmers themselves. If the assembly prices may be reduced, the financial gain for farmers may be magnified, consequently, the welfare of farmers may increase. Besides that, within the market, organic produce tends to be more expensive than chemically grown-up produce (Hidayat, & Lesmana, 2011)

Ecologically, organic farming systems are better for the ecosystem than conventional farming systems (Karki, Steinecker, & Hamm, 2011). The positive impact of organic agriculture on the environment is that it is better in the effort to restore soil conditions that have been damaged by the use of artificial fertilizers or pesticides. So, using an organic system indirectly preserves the physical, chemical, and biological properties of the soil because, with this pattern, soil cultivation encourages an increase in soil organic matter content. The positive environmental impact of organic farming is to preserve biodiversity (Rundlof, & Schmidt, 2006). This organic farming system not only avoids the use of synthetic pesticides but is also able to create biodiversity (Fuller, et al. 2005)

Besides that, organic farming also does not use genetically modified organisms for safety, health, and social reasons. Another positive effect that will be obtained with an organic system is minimizing the form of pollution due to agricultural activities, such as air pollution due to the use of pesticides, water pollution due to chemical residues because from experience, synthetic fertilizer and pesticide residues, and disease-causing bacteria are often found in the system. Another advantage is that it is environmentally friendly because it uses compost, or manure, which all come from nature (Stockdale, 2001). In addition, the organic farming system is able to utilize waste to improve the quality of plant production. This farming system is able to reduce the amount of waste by recycling waste into organic fertilizer. Livestock manure, rice straw, and other agricultural wastes that have been considered waste have become materials that have value as a source of nutrition and organic material for organic agriculture. In essence, organic farming educates farmers to be self-reliant, that is, to stand on their own feet and not depend on suppliers who always fill the needs of conventional farmers (Lotter, 2003).

Several studies have been carried out related to agricultural systems and also the importance of organic farming systems, but there has been no specific study on the understanding of young farmers about their ability to understand the meaning of organic farming terminologies. Understanding the importance of the role of young farmers in the agricultural sector and the importance of organic farming systems, this research was conducted to assess understanding of organic farming terminologies so that later this could make it easier for these young farmers to communicate in agriculture within farming communities in their respective areas.

## RESEARCH METHOD

The present study used an ex post facto research design to collect the data concerning young farmers' acquisition of organic farming terminologies. The sample was randomly selected from the total population where the study was undertaken. Based on the computation of random sampling techniques with a lottery system, 40 young farmers were taken as a sample of the study. The data were collected by administering an essay test to measure the young farmers' acquisition of organic farming terminologies. The essay tests were concerning terminologies related to equipment and tools, facilities, farming system, plants. Young farmers were asked to answer the questions based on their understanding and ability of organic farming. The data are then organized based on their categories and specification, and then descriptively analyzed to establish valid and reliable findings. To figure out the young farmers' acquisition percentage, the data were quantitatively analyzed and then the young farmers' acquisitions were put into a category using five norm criterion such as excellent, good, sufficient, insufficient, poor

## RESULTS AND DISCUSSION

Organic farming is agricultural production systems holistic and integrated,

by optimizing health and productivity of ecosystem naturally, thus producing food and fiber sufficient, quality, and sustainable. Organic farming is an agricultural holistic system that supports and accelerates biodiversity, biological cycles, and soil biological activity. organic farming, as a system of agricultural production based on the principle of bio-recycling. Recycle nutrients can be through the means of plant and livestock waste, as well as other waste able to improve fertility status and soil structure. Organic agriculture is a system that tries to return all types of organic matter into the soil, both in the form of residues and wastes crops and livestock which in turn aims to provide food in plants. The philosophy that underlies organic farming is to develop principles of feeding the soil which is then the soil provides food for plants.

The young farmers' acquisition of organic farming terminologies was collected using an essay test and then analyzed using the norm-referenced criterion of five standard measures showing excellent, good, sufficient, insufficient, and poor acquisition of organic farming terminologies. The data were in the form of raw scores of organic farming terminologies. The analysis was started by computing the mean score (M) of the young farmers' acquisition in organic farming terminologies, and the computation process was continued by figuring out the standard deviation (SD). Once the mean scores and the standard deviation scores were determined, the scores were then converted by utilizing a norm-reference measure of five standard criteria to know the percentage of the young farmers' acquisition on organic farming terminologies who achieved excellent, good, sufficient, insufficient, and poor acquisition.

In this study, there were 40 young farmers were thoroughly studied to know their level of acquisition. Based on the data collected for this study, it was revealed that 6 samples obtained excellent acquisition; 9 samples attained good acquisition, and 10

samples got sufficient acquisition and 15 samples achieved insufficient acquisition. The percentages of the findings were analyzed by computing the total of each converted score and it was divided by the total numbers of the samples; it was then timed 100% to get the percentage for each converted score. The results of the analysis revealed that 15% of the samples under study achieved excellent vocabulary acquisition on organic farming terminologies; 22.5% of the samples under study achieved good vocabulary achievement; 25% of the samples under study achieved sufficient vocabulary acquisition, and 37.5% of the samples under study each attained insufficient vocabulary acquisition or poor vocabulary achievement. In this research, 15 or 37.5 % of samples achieved insufficient vocabulary acquisition because of limited exposure and low experience in organic farming. This insufficient acquisition percentage is relatively high in comparison with good and excellent achievers, therefore this study found that many young farmers still need to improve their organic farming terminologies acquisition to be able to communicate well with others.

Most young farmers were unable to name the types of equipment and facilities needed for organic farming. They could not name the equipment in English appropriately and they also found it hard to described the terminologies used during the organic farming activities. However, most students were able to mention the name of the plants commonly grown through organic farming systems. The most mentioned plants are as follows: padi (*oryza sativa*), tomat (*solanum lycopersicum*), cabai (*capsicum frutescens*), kangkung (*Ipomoea aquatica*), jagung (*zea mays*), singkong (*manihot esculenta*), ubi jalar (*ipomoea batatas*), kacang merah (*vigna angularis*), kacang tanah (*arachis hypogaea*), bayam (*Amaranthus*), seledri (*apium graveolens*), pepaya (*carica papaya*), bawang merah (*allium cepa*), bawang putih (*allium*

sativum), kunyit (*curcuma longa*), jahe (*zingiber officinale*), lengkuas (*alpinia galanga*), wortel (*daucus carota* subsp. *sativus*), terong (*solanum melongena*), and pare (*momordica charantia*)

Organic farming is an agricultural system holistically conducted by the farmers to support and accelerate biological cycles, and soil biological activity. It's done by encouraging and rising environmental awareness activities within the farming system by activating the lifetime of microorganisms, flora, and fauna, soil, plants, and animals. This could provide higher agricultural produce to satisfy the essential needs for human life. Organic farming could be a system of integrated production management that avoids the utilization of artificial fertilizers, pesticides, and genetically changed merchandise, reduces air, soil, and pollution. Organic farming on the opposite hand conjointly seeks to boost health and productivity among flora, fauna, and humans. Organic farming is that the answer to the farming development within the context of accelerating food production that has resulted in reduced soil fertility and environmental harm as a result of the utilization of chemical fertilizers and pesticides that don't support the balance of the system.

Continuous application of chemical fertilizers (inorganic) to pursue productivity levels, while not being balanced with efforts to boost soil wholeness through the addition of organic matter causes soil organic matter content to decrease, the soil becomes compact, soil structure harm, and soil aeration is reduced in deep soil stores and releases nutrients and water for crops. Organic farming has been well-known for a protracted time since the science of farming has been well-known to humans, wherever everything is completed historically spoiling natural ingredients. Through organic farming, several benefits will be achieved, specifically ecological, economic, and health advantages.

Through organic farming, we can support the balance of the system and soil fertility that eventually give healthy produce. Economically, organic produce is healthier than agricultural produce that is chemically grownup. Therefore, by marketing organic agricultural produce, the farmers might have a lot of financial gains. Additionally, all organic agricultural produce is healthy to consume as a result of they were grownup on healthy soil. Therefore, young farmers are expected to develop more intensively and widely the organic farming system for the sake of a healthy environment and ecosystems

## CONCLUSION

This study concluded that young farmers still lack vocabulary acquisition on organic farming. This low acquisition may burden their communication in organic farming with other farmers across the globe. Although, the young farmers found some difficulty in understanding English terminologies on organic farming, their willingness to learn organic farming and comprehending terminologies used were high because they believe organic farming is one of the farming systems that should be developed to provide food and environmental sustainability.

This study implies that young farmers should be exposed to various training programs on organic farming to ensure that they attain high acquisition on organic farming systems and organic farming terminologies.

## REFERENCES

- Ashari, Sharifuddin J, Mohammed ZA, Terano R. 2016. Rice farmers' perception and attitude toward organic farming adoption. *J Agro Ekon.* 34(1):35-46.
- Budiasa, Wayan. 2010. *Subak's Dual Role for Sustainable Agriculture in Bali Province.* AGRISEP.Vol 9 No.2. September 2010. Hal: 153-165.
- Fuller, R. J. et al. 2005 Benefits of organic

- farming to biodiversity vary among taxa. *Biol. Lett.* 1, 431–434. (doi:10.1098/rsbl.2005.0357)
- Hidayat AS, Lesmana T. 2011. The development of organic rice farming in Indonesia. *Revi Indonesian Econ Business Stud.* 2(1):71-87.
- Karki L, Schleenbecker R, Hamm U. 2011. Factors influencing a conversion to organic farming in Nepalese tea farms. *J Agric Rural Dev Tropics and Subtropics* 112 (2): 113–123
- Lotter, D. W. 2003. Organic agriculture. *J. Sustain. Agr.* 21, 59–128
- Mayrowani H. 2012. Pengembangan pertanian organik di Indonesia (The development of organic agriculture in Indonesia). *Forum Penel Agro Ekon.* 30(2):91-108.
- Oyesola OB, Obabire IE. 2011. Farmers' perceptions of organic farming in selected local government areas of Ekiti State, Nigeria. *J Organic Systems.* 6(1):20-26.
- Peterson HH, Barkley A, Cascante AC, Kastens TL. 2012. The motivation for organic grain farming in the United States: profits, lifestyle, or the environment?. *J Agric Applied Econ.* 44(2):137-155.
- Rundlof, M. & Schmidt, H. G. 2006 The effect of organic farming on butterfly diversity depends on the landscape context. *J. Appl. Ecol.* 43, 1121–1127. (doi:10.1111/ j.1365-2664.2006.01233.x)
- Stockdale, E. A. et al. 2001. Agronomic and environmental implications of organic farming systems. *Adv. Agron.* 70, 261–327