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# Extension Methods of Pekarangan Pangan Lestari (P2L) Program Before and During the Covid-19 Pandemic at Parepare City

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Abstract— Agriculture is a sector that is very important to pay attention to its development because one of the basic needs, namely food, is the main activity of this sector. Therefore, the government formed an activity, namely the Pekarangan Pangan Lestari (P2L) to support the agricultural sector in meeting food availability, especially in urban areas that are vulnerable to food insecurity. The aims of this study were 1) To find out the extension method for the Pekarangan Pangan Lestari (P2L) program in Parepare before and during the Covid-19 pandemic, 2) To analyze the differences in the extension method to the Pekarangan Pangan Lestari (P2L) program in Parepare before and during the Covid-19 pandemic, 3) Analyzing the effect of the Covid-19 pandemic on the extension method to the Pekarangan Pangan Lestari (P2L) program in the City of Parepare. This research was conducted at the Dinas Ketahanan Pangan of Parepare City and used descriptive and quantitative methods. The results showed that there were significant differences between the extension methods of the Pekarangan Pangan Lestari (P2L) program before and during the Covid-19 pandemic. The change in the extension method was influenced by several factors, namely government policies, the quantity of meetings and the extension materials provided. The results showed that there were significant differences between the extension methods of the Pekarangan Pangan Lestari (P2L) program before and during the Covid-19 pandemic. The change in the extension method was influenced by several factors, namely government policies, the quantity of meetings and the extension materials.

Keywords— Pekarangan Pangan Lestari (P2L), Extension Method, Extension, Covid-19

### I. INTRODUCTION

### 1.1. Background

Agriculture and food are two things that go hand in hand and have a very important role in human life, namely meeting the national food supply. This is because food is produced through the process of cultivating food crops which is one of the activities of agriculture. The agricultural sector is also a source of employment for most of the population. A problem researcher from the Food and Agriculture Organization (FAO), stated that no country can rise from the poverty line without the help and support of a productive agricultural sector. This means that agriculture is one sector that needs more attention. because not only as a supporter of increasing the national economy but also has a mission to provide

food for the entire population, especially in some areas where the land is still not sufficient to produce sufficient food for the population living in urban areas. The development of the agricultural sector is carried out by carrying out agricultural development so that it is better in supporting the national economy and following the development of an increasingly fast era(Yodfiatfinda, 2018).

Agricultural development is inseparable from the efforts to develop human resources involved in it, especially farmers as the main actors in agricultural activities. The decline in agricultural development activities was caused by differences in perceptions between two different parties about the role of agriculture and the low priority and budget allocation for agricultural

development, namely between the regions and the center as well as between the executive and local legislatures. In addition, the problem faced is the limited availability of information about agriculture, the capacity and managerial ability of extension workers who are still lacking and rarely visit the farmers and group(Nurdyawati, 2020).

Agricultural extension is an informal education aimed at farmers with the aim of gaining and improving skills, knowledge and skills through a learning process facilitated by extension workers. Extension activities are expected to improve the development of farmers and farmer groups both in terms of quality and quantity and have good relations with all relevant agencies and production results can increase so as to have an impact on increasing economic income for farmers(Halimah & Subari, 2020). Agricultural instructors have several methods or extension programs that are applied to farmers or farmer groups. Agricultural extension methods have been regulated and discussed in the Regulation of the Minister of Agriculture of the Republic of Indonesia Number 03 of 2018 Article 1 Paragraph 8concerning Guidelines for theImplementation of Agricultural Extension, it is stated that the agricultural extension method is a method used by agricultural extension workers to provide agricultural extension materials to farmers or farmer groups. in order to foster curiosity, willingness, and be able to help and regulate themselves in getting the information they need to improve their farming activities such as markets, technology, and other resources to improve their ability to carry out production activities, business efficiency, farmers' income which is accompanied by an increase in the welfare of farmers as well as increasing their awareness in preserving environmental functions. Therefore, to support the agricultural sector, in 2010, the Badan Ketahanan Pangancreated a program namely the Kawasan Rumah Pangan Lestari (KRPL). This activity will continue until 2019 then in 2020 the name of this activity will be changed to Pekarangan Pangan Lestari (P2L) with the aim of expanding the number of beneficiaries and land use.

Pekarangan Pangan Lestari (P2L) are activities carried out by the community in groups by utilizing previously unproductive land such as yards, vacant land and unused land as a source of food in a sustainable manner, namely by producing food to meet household food and nutritional needs and has a selling value to increase household income. This is done with the aim that they are able to increase the availability of food, the ease of obtaining food, as well as the processing and utilization of food to increase their household income. The Pekarangan Pangan Lestari (P2L) activity is held with the

aim of supporting the work program that has been carried out by the government for handling stunting-prone areas and handling areas that if not paid attention to will experience food insecurity conditions. This Pekarangan Pangan Lestari (P2L) really helps the community in meeting their respective food needs, especially during the Covid-19 pandemic as it is today.(Badan Ketahanan Pangan Kementerian Pertanian, 2020).

The Covid-19 case has an impact on all sectors, not only the economic sector, the agricultural sector is also affected by this pandemic. The agricultural sector is a priority need in dealing with the spread of Covid-19 in Indonesia. The agricultural sector must be strong in dealing with the Covid-19 pandemic because it is directly related to the basic needs of mankind. If agriculture is not strong enough to face the pandemic, this will have an impact on other sectors and getting worse.

Strengthening the agricultural sector starts from human resources who are at the forefront or can be called the frontline of agriculture, namely farmers. A farmer group is one of the organizations formed with the aim of making it easier for farmers to solve their problems so that production can be carried out optimally and efficiently because of agricultural activities carried out in farmer groups, procurement of production facilities and sale of produce that can be done together(Jamil et al., 2020). In empowering farmers during the Covid-19 pandemic, agricultural extension workers are needed so that they can continue to run their business as usual(Hartati, 2020). In addition to the economy, the current pandemic also has several impacts on extension workers in carrying out their main tasks. These impacts can hinder and become a challenge for extension workers at this time to adjust to the conditions of the Covid-19 pandemic. Not only extension workers, but farmer groups or farmers are alsoaffected by the conditions during the Covid-19 pandemic.

Farmer groups participating in the Pekarangan Pangan Lestari (P2L) program also have various problems that have arisen due to the Covid-19 pandemic. One of them is the implementation of social distancing during the Covid-19 pandemic which hampers the Pekarangan Pangan Lestari (P2L) program. During the Covid-19 pandemic, there were several farmer groups of Pekarangan Pangan Lestari (P2L) program whose activities were stopped. In fact, the Pekarangan Pangan Lestari (P2L) program can be a solution for the availability of food during the Covid-19 pandemic. This problem is one that is commonly faced by agricultural extension workers in carrying out agricultural extension activities. They must cultivate and maintain the interest and desire of farmer groups from the Pekarangan Pangan Lestari (P2L)

program to continue to carry out their activities so that they can feel the benefit greatly from this program. Extension workers want to have several ways or strategies and methods to help farmer groups in dealing with their problems during the current Covid-19 pandemic. Based on the description above, the author wishes to conduct a research with the title "Extension Methods of Pekarangan Pangan Lestari Program (P2L) Before and During the Covid-19 Pandemic at Parepare City".

## 1.2. Formulation of the problem

Based on the description that has been put forward in the background, the formulation of the problem is as follows:

- 1. How was the extension method for the Pekarangan Pangan Lestari (P2L) program in the City of Parepare before and during the Covid-19 pandemic?
- 2. Are there differences in the extension methods applied to the Pekarangan Pangan Lestari (P2L) program in the City of Parepare before and during the Covid-19 pandemic?
- 3. Does the Covid-19 pandemic condition affect the extension method applied to the Pekarangan Pangan Lestari (P2L) program in Parepare City?

#### 1.3. Research Gape (Novelty)

There are several previous studies that discuss extension methods such as research conducted by Andi Imran. Muhanniah BibianaRiniWidiatiGiono(Imran et Maroswith the title "Agricultural Extension Methods in Improving Farmers' Knowledge and Skills (Case Study in Maros Baru District, Maros Regency" and "Approaching Agricultural Extension Methods for Chili Farming in Tiwoho Village, Wori District, North Minahasa Regency" by Patrix Juriko Tumurang, Melsje Yellie Memah and Melissa Lady Gisela Tarore(Tumurang et al., 2019). Both of these studies used a qualitative descriptive method with a focus on research on the opinions and views of farmers about the extension methods that have been applied by agricultural extension workers, then from the assessment of the farmers, they found the best, efficient and effective method according to them.

Research on the extension method of the Pekarangan Pangan Lestari (P2L) program is still very limited and it can be said that it does not yet exist. Therefore, research like this is urgently needed to improve the performance of the agricultural sector, especially in urban areas which are areas of agricultural land crisis. The current state of the Covid-19 pandemic

has greatly affected the agricultural sector, therefore food security and the agricultural sector must be able to survive. The increase in the agricultural sector was carried out by farmer groups as the main actors and assisted by agricultural extension workers. Extension methods are very influential on the success of an extension worker in providing information to farmer groups. If the extension method used is not appropriate, then the information provided will also not be well received by the farmer group.

#### 1.4. Research purposes

Based on the formulation of the problem that has been stated, the research objectives are as follows:

- To find out the extension method for the Pekarangan Pangan Lestari (P2L) program in the City of Parepare before and during the Covid-19 pandemic
- 2. To analyze the differences in the extension methods applied to the Pekarangan Pangan Lestari (P2L) program in the City of Parepare before and during the Covid-19 pandemic.
- 3. To analyze the effect of the Covid-19 pandemic on the extension method applied to the Pekarangan Pangan Lestari (P2L) program in the City of Parepare

### 1.5. Research Use

The benefits that can be obtained from this research are as follows:

- 1. For the government, this research can be used as consideration for the authorities to make decisions in developing the Pekarangan Pangan Lestari (P2L) program in the future.
- 2. For Pekarangan Pangan Lestari farmer groups, this research can be used as learning material in developing their farming.

## 1.6. Framework

The agricultural extension method is a method used by agricultural extension workers to convey an extension material to farmers and their families either directly or indirectly, so that they are able to improve their abilities and apply innovations (new technologies). The Pekarangan Pangan Lestari (P2L) activity is one of the government's efforts and efforts, especially the ministry of agriculture, to increase the availability of food, the ease of obtaining food, and the use of food for households in accordance with the needs of diverse, nutritionally balanced, and safe food that has value. good selling to increase the income of a household.

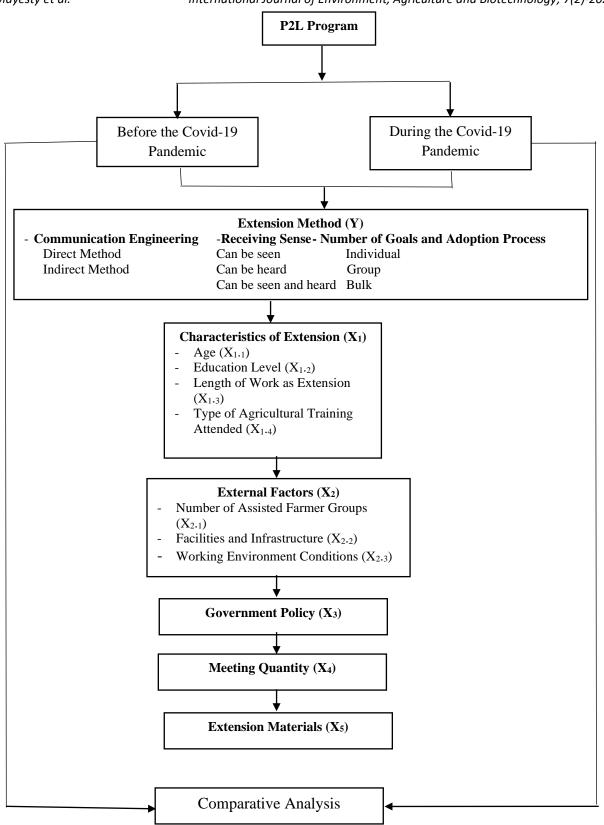


Fig.1. Research Framework

The current Covid-19 pandemic is very influential for several people, including agricultural extension workers. They are required to improve the quality of agriculture through outreach activities during the Covid-19 pandemic like this. Starting from utilizing technology and

social media platforms to facilitate their extension activities, adjusting extension methods, and adjusting extension materials for farmers. This is in accordance with the opinion(Calvert, 2020)which states that extension workers should be motivated by every situation they are

facing to be able to lead, adapt, innovate, and find solutions to the problems and challenges they face today and in the future that they will face.

One of the agricultural programs that requires counseling is the Pekarangan Pangan Lestari (P2L) program which has the aim of increasing household income by utilizing yards that were not previously used and used as agricultural land to be planted with various market-oriented crops. This program extension has its own challenges in carrying out its role. At this time, extension workers want to adapt so that they are able to carry out their role and maintain health to avoid the Covid-19 virus. One of them is by adjusting the method of counseling that is carried out. This is in accordance with the opinion(Wibowo & Haryanto, 2020)who stated that during the current Covid-19 pandemic, the important role of agricultural extension workers is expected to be able to make agriculture run well so that it can help the availability of food and ensure the availability of basic materials for 267 million Indonesian people.

There are several factors that can influence the extension method applied to a farmer group, namely the characteristics of the extension worker, starting from age, gender, education level, length of work as an extension worker, and the type of agricultural training he has attended. In addition, the characteristics of the target also affect the extension method in this case the farmer group.

Farmer groups cannot be separated from the head of the farmer group who acts as a leader who directs, fosters, assigns and guides its members to achieve the goals of the farmer group. The role of the leader is not only to direct but also to be an example for its members. In addition to characteristics, external factors such as the number of assisted farmer groups, facilities and infrastructure as well as the work environment also can affect the extension methods used to farmers.

Government policies can also have an influence on extension methods during the Covid-19 pandemic. Especially regarding the health protocols that make us unable to move freely due to the Covid-19 pandemic. As a result, the material and quantity of meetings can also affect the extension method that applied.

## II. RESEARCH METHODS

## 2.1. Research Location and Time

This research was conducted at the DinasKetahananPangan of Parepare City Office. The determination of the research location was carried out intentionally with the consideration that the Pekarangan Pangan Lestari (P2L) in Parepare City has many types of plants and groups that are active in carrying out this program and the Pekarangan Pangan Lestari (P2L)

program has received good attention from the government and this program has running for  $\pm$  4 years at the study site. During the Covid-19 pandemic, several farmer groups stopped their activities due to several problems. This program instructor at the research location had several challenges, especially during the Covid-19 pandemic with the limitations and experience of farmer groups that ran a few months before the emergence of Covid-19.

### 2.2. Research methods

The type of research used is descriptive quantitative. As explained in the book(Mukhtar, 2013), that quantitative research is a systematic scientific research on an event or phenomenon that is currently happening. The purpose of quantitative research is to develop and use mathematical models, theories or hypothesis related to or in accordance

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

with events that occur in the field(Hardani. Ustiawaty, 2017).

### 2.3. Analysis Method

#### 2.3.1. T test

The T-test formula is used to answer the researcher's goals, namely the first objective which discusses the differences in counseling methods before and during the Covid-19 pandemic. The T-test formula used in this study is the Paired T-test formula. The following formula is used:

$$t = \frac{\overline{D}}{SD/\sqrt{N}} \qquad \qquad \overline{D} = \frac{\sum_{i=1}^{n} d_i}{n}$$

Information:

t = value t count

D= Average difference in measurement 1 and 2

SD = Standard deviation of the difference in measurement of 1 and 2

N = Number of samples

To get the value of the deviation and standard deviation used the formula:

$$SD = \frac{\sqrt{\sum_{i=1}^{n} (d_i - d)^2}}{n-1}$$

Information:

di = difference of each pair

d = Mean

### 2.3.2. Multiple linear regression

Multiple linear regression was used to answer the second objective of this study, namely to examine the effect of the independent or independent variables on the dependent variable. The equation of the form of multiple linear regression that canbe formulated as:

Information:

Y = Extension method

 $\beta_0$  =Regression intercept coefficient

 $\beta_1, \beta_2, \beta_3, \beta_4, \beta_4$ = Regression coefficient

 $X_1$  = Characteristics of the instructor

 $X_2 = External factor$ 

 $X_3 = Government Policy$ 

 $X_4 =$  Number of encounters

 $X_5$  = Extension material

e = Error term (interference factor) or residue.

## 2.6. Hypothesis

Based on the formulation of the problem, the purpose of the research, the frame of mind in the description above, the hypothesis of this study is:

- H<sub>0</sub>: There is no changes in extension methods made to the Pekarangan Pangan Lestari (P2L) program group during the Covid-19 pandemic
- H<sub>1</sub>: There was a change in the extension method made to the Pekarangan Pangan Lestari (P2L) program group during the Covid-19 pandemic

#### III. RESULTS AND DISCUSSION

## 3.1. Pekarangan Pangan Lestari Extension Methods (P2L) Before the Covid-19 Pandemic

The Pekarangan Pangan Lestari(P2L) extension method before the Covid-19 pandemic was carried out face-to-face between the extension worker and the group concerned. The meeting was conducted and planned by the instructor for each group. The extension process begins with planning the extension activities made by the extension worker before going to the field. Generally, the method used by extension workers is face-to-face, which is a direct visit to their location with the aim of directly observing group activities. Usually, they visit 2 times a week. At these meetings, they usually evaluate the activities that have been carried out by the group. In addition, extension workers usually go directly if there are new activities held by Pekarangan Pangan Lestari (P2L) farmer groups.

Counseling is given starting from the upstream to downstream process. The selection of the commodity to be planted is determined by the group itself based on the needs of the general public by considering their skills in caring for the plant. After conducting the counseling, the extension worker will make a report regarding the progress and obstacles encountered during the extension. During the

extension activities, the extension workers will monitor and help the participants solve their problems if there are problems encountered during the week. In addition, all types of assistance provided to participants by the government through the Food Security Service will be provided directly, without any intermediary, either extension workers or other people. This is done in order to minimize any misunderstanding between the recipient and the aid provider.

The extension media used by most of the extension workers is a mobile phone. This media is one of the tools used to facilitate their daily activities. Whether it's contacting each other when problems arise or learning from the internet about the activities they are currently doing. However, before Covid-19, they rarely held meetings by cell phone, but went directly to the field and taught about new things they wanted to know for the smooth running of their activities and the achievement of the goals of the Pekarangan Pangan Lestari (P2L) program during Covid-19 pandemic.

The extension of the Pekarangan Pangan Lestari Program (P2L) will accompany their group until they become an independent group. In this case, the group has been able to manage their finances and the smooth running of their activities. During the process, from growth to development, extension workers face various obstacles and challenges in carrying out their duties. One of them is, there are still some group members who have not actively contributed to their group. They only want to participate in receiving the assistance provided by the government, not to take advantage of this activity.

## 3.2. Pekarangan Pangan Lestari Extension Methods (P2L) During the Covid-19 Pandemic Masa

When the Covid-19 pandemic spreads to all parts of the world including Indonesia, all activities we do are limited in order to prevent the spread of the corona virus in every country, especially Indonesia. The government is doing everything possible so that the spread of the corona virus or Covid-19 can be immediately resolved and no more victims will be affected by the virus, because this virus is a dangerous virus and can be transmitted from one human to another. Thus, the government makes several policies that must be obeyed by the community with the first step being to do a lockdown and we are also encouraged to do physical quarantine for areas that are already included in the dangerous zone or red zone. To reduce the risk of contracting the Covid-19 virus(Habibah et al., 2020).

The method of counseling the Pekarangan Pangan Lestari (P2L) in Parepare City during the Covid-19 pandemic did not have many significant changes. They continue to carry out the counseling method as usual.

However, because the Covid-19 virus is spreading very quickly, they still pay attention to the health protocols that have been set by the government. This is implemented for the common safety of both extension workers and participants of the Pekarangan Pangan Lestari (P2L) program to avoid the Covid-19 disease. In addition to the direct meetings that are used, namely LAKU (Training and Visits), they also usually hold discussions together through the WhatsApp group chat that they had previously created. So, there is no specific time to have a discussion with the extension worker. They can do it anywhere and anytime.

The existence of a virus that appeared suddenly that attacked almost all over the world, including Indonesia, made every human activity, both economic and social, also experience a very significant impact. All activities carried out will be carried out online. Online is a meeting system that is carried out using pedagogical tools or tools that allow you to use internet access and good information technology to facilitate the formation of processes and knowledge through interactions carried out. With the development of increasingly advanced technology, so that it also has an impact on the progress of the media used today, although with different plantings.

Technology and information is a solution for the activities carried out today. During the current Covid-19 pandemic, extension workers are greatly helped by the presence of mobile phones and several supporting communication applications that can make it easier for them to carry out the tasks that must be done. By utilizing existing media, they can work anywhere and anytime. Since the introduction of social distancing, they have to do everything from home and reduce face-to-face meetings. Therefore, the intensity of their meetings is also reduced, because they want to follow the existing regulations.

In addition to conducting online or online counseling, extension workers also carry out several other ways by utilizing existing media. One of them is collaborating with TV stations owned by the local government, in this case the Mayor of Parepare. They broadcast videos that can educate the public at large, not just farmer groups for the Pekarangan Pangan Lestari (P2L) program. The schedule for broadcasting the video is 2 times a week. Through this video, extension workers can evaluate the activities carried out by farmer groups. The video shown is a personal video of the activities of the Pekarangan Pangan Lestari (P2L) farmer group and an explanation video from agricultural extension workers containing extension materials. With this broadcast, it is able to motivate the wider community about agriculture and plant cultivation carried out by farmer groups for the Pekarangan Pangan Lestari (P2L) program and grow their interest in participating in this program and feeling the benefits. In addition, farmer groups from the Pekarangan Pangan Lestari (P2L) program and agricultural extension workers can be more creative in making videos of their respective activities.

However, there are several problems faced by extension workers during the Covid-19 pandemic, namely the lack of group members who do not yet have mobile phones to maximize their participation in this activity. As a result, there are some members who still don't understand what they have to do and miss the material that has been given by the extension worker and they will be increasingly lazy to take part in the Pekarangan Pangan Lestari (P2L) activity. As a result, the members' interest in continuing their participation in the program is decreasing. In addition, with their many activities apart from participating in the Pekarangan Pangan Lestari (P2L) program.

The majority of farmer group members who participate in this program are housewives who have many other activities. according to(Chairani, 2020), women experience higher difficulties in dealing with Covid-19 compared to men, both from a health and economic perspective. The role of women in the care economy requires more attention to anticipate the surge in cases of Covid-19 for women. Women are overshadowed by conditions of termination of employment due to the cessation of economic activity in a sector dominated by women. Women who are still working with the Work From Home (WFH) policy also experience a double burden in the household.

During the Covid-19 pandemic, there were several farmer groups whose activities were stopped due to several problems. Extension workers do some several things to motivate farmer groups that are still active. One of them is holding a competition or competition between farmer groups for the Pekarangan Pangan Lestari (P2L) program. This competition aims to grow and maintain the spirit of the Farmer Group's Sustainable Food Program (P2L) in carrying out their respective activities.

## 3.3. T Test (Different Test)

The difference test is one of the analytical tools used to determine whether or not there are differences between two objects that are the same but in different circumstances or situations. In this study, a paired difference test was used, namely with the same object, namely the Pekarangan Pangan Lestari instructor (P2L) but in a different situation, namely before Covid-19 and after the Covid-19 pandemic. Their differences can be seen from the counseling methods they applied both before the Covid-19 pandemic and after the emergence of the Covid-19 pandemic. This is assessed from several factors that have changed and are able to influence changes in the

extension method applied to both conditions. The following table shows the results of the analysis of the

different

tests

in

this

study.

Table 3.3. Pairwise Difference Test Analysis Results

				= 1,5,000 = 1					
			Pa	aired Differences			T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		_		
					Lower	Upper			
Pair 1	Before - During	-21.50000	3.33167	1.36015	- 24.99637	-18,0363	15,807	5	.000

Source: Processed Primary Data (2021)

From the table above, it can be seen that the significance value is less than 0.05. This means that  $H_0$  is rejected and  $H_1$  is accepted, namely there is a significant difference between the extension method before the Covid-19 pandemic and the extension method during the Covid-19 pandemic. This can be seen from the use of social media and other platforms to conduct discussions between extension workers and target groups. In addition, the number of meetings has also decreased due to several government policies which have resulted in a lack of direct meetings in order to avoid crowds and the risk of contracting the Covid-19 disease. In addition, the t-count value is greater than the t-table(15,807>2,015) which means that there is a significant difference between the

extension methods that applied to PekaranganPangan Lestari (P2L) farmer group at Parepare City before and during the Covid-19 pandemic.

#### 3.4. Multiple linear regression

Multiple linear regression uses several independent variables (X) to determine whether or not these variables have an effect on the dependent variable (Y). In this study, the dependent variable was used, namely Y (extension method) and 5 independent variables including  $X_1$  (characteristics of extension workers),  $X_2$  (external factors),  $X_3$  (government policy),  $X_4$  (quantity of meetings) and  $X_5$  (extension materials). The results of multiple linear regression can be seen in table 3.4 below

Table 3.4. Multiple Linear Regression Coefficient Results

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	-	-
Model		В	Std. Error	Beta	T	Sig.
1	Y (Constant)	5.787	13.175		.439	.664
	X1	052	.441	028	117	.908
	X2	136	.182	-177	-744	.464
	X3	.355	.278	.259	2.278	.013
	X4	.242	.313	.167	1,774	.046
	X5	.322	.281	.265	2.145	.033

Source: Processed Primary Data (2021)

In the table, it can be seen that of the five variables, but there are onlythree variables that have a significant influence on the Pekarangan Pangan Lestari (P2L) extension method in Parepare City during the Covid-19 pandemic, namely X<sub>3</sub> (Quantity of Meetings), X<sub>4</sub> (Government Policy) and X<sub>5</sub> (Extension Material). This is evidenced by the ongoing implementation of outreach to members of the Pekarangan Pangan Lestari (P2L) group during the Covid-19 pandemic, although it is carried out using a different method from the previous

one due to the influence of these three variables. The following is an explanation of the influence of the five variables above is:

1. The influence of the characteristics of the extension agent on the extension method

Characteristics of extension agents are one of the factors that can influence extension methods such as age, last education, main and side jobs, making them choose different extension methods. The results of the analysis of the data obtained indicate that the value of the  $X_1$  variable

(characteristics of the extension agent) has no effect on the extension method carried out by the Pekarangan Pangan Lestari (P2L) extension during the Covid-19 pandemic. This is in accordance with the significance value obtained, which is 0.908, meaning that the significance value is greater than the significance level value in the t table (0.908 > 0.05) while the t arithmetic value obtained is -0.117 which means it is smaller than the t table value. (-0.117 < 1.711).

This can be proven directly by looking at the extension activities carried out at the Pekarangan Pangan Lestari (P2L), namely by carrying out the extension method in accordance with the agreement taken and has been adapted to the conditions of the Covid-19 pandemic by the extension workers. This decision is a form of mutual agreement made by the extension workers before carrying out extension activities, namely every three months a meeting will be held to discuss the design of the extension method that they will apply to the Pekarangan Pangan Lestari (P2L) group.

## 2. The influence of external factors on the extension method

A person's external factors will affect the extension method to be used. Usually, extension workers consider their external factors, such as the distance between the location where the extension worker lives and the location where the assisted members live. If their house is far away, they usually use indirect extension methods. However, the results of the study show that the X<sub>2</sub> variable has no significant effect on the extension method during the Covid-19 pandemic. It can be seen from the significance value which is greater than the value of the significance level in the t table (0.464>0.05) while the calculated t value obtained is smaller than the t table value (-0.744<1.711). This means that external factors have no significant effect on the extension method during the Covid-19 pandemic. With the current social media platforms and mobile phones, external factors do not affect the extension method. This is because it is easier to access various activities through social media so that they can carry out more than one activity and control more than one farmer group.

## The influence of government policies on extension methods

In general, every activity carried out by citizens still pays attention to government policies that have been previously regulated. The facts of the research results are different from general conditions, based on the results of data analysis, it shows that the extension method variable has a positive and significant effect on the extension method during the Covid-19 pandemic. It can be seen from the significance value which has a greater value than

the significance level value in the t table (0.013<0.05) while the t arithmetic value obtained is greater than the t table value (2.278>1.711). This is because during the Covid-19 pandemic, the government issued new regulations or policies to suppress the spread of the Covid-19 virus. Such as, implementing social distancing or keeping a distance, wearing a mask when doing activities outside the home, and other new rules that must be obeyed. This affects the extension method applied by the extension worker to the Pekarangan Pangan Lestari (P2L) program.

## 4. The Influence of Meeting Quantity on Extension Methods

The number of meetings is very influential on the method of counseling. This is because the more efficient the extension methods used by the extension workers, the more often they carry out discussions because it does not take up a lot of time from each group member and the extension workers have their own activities and activities apart from participating in the Pekarangan Pangan Lestari (P2L) program.

The results of the data analysis show that the variable quantity of meetings has an effect and is significant on the extension method during the Covid-19 pandemic. It can be seen from the value of its significance which has a smaller value compared to the value of the level of significance in the table t (0.046<0.05) and the value of the calculation t which is greater than the value of the table t (1,774>1,711). This means, with the dense quantity of meetings during the Covid-19 pandemic, they prefer to implement virtual meetings or via mobile phones and social media. In addition to making it easier to convey information to the Pekarangan Pangan Lestari (P2L) program groups, they are also easier to control and evaluate the activities of the Pekarangan Pangan Lestari (P2L) groups assisted by each extension. They only make direct visits if there are certain and urgent circumstances or there are problems that cannot be resolved by telephone. However, things like this are still rare and group members can still resolve their respective problems by deliberation and prioritize mutual agreement.

## 5. The Influence of Extension Materials on Extension Methods

The counseling materials provided to the Pekarangan Pangan Lestari's (P2L) group program are adapted to current technological developments. With the variety of extension materials provided by extension workers, the extension methods used are also different. This is because the extension method is a way to convey information to their target groups. The results of data analysis showed that the extension material variable had a positive and significant effect on the extension method

during the Covid-19 pandemic. It can be seen from the significance value which has a value of (0.033<0.05) and the value of t count > t table (2.145>1.711). It means, The extension method during the Covid-19 pandemic has more material than the previous material that has been designed. With the current situation, special materials were added, such as how to farm during the Covid-19 pandemic.

## IV. CONCLUSIONS AND RECOMMENDATIONS

### 4.1. Conclusion

Based on the results and discussion of the research that has been done, the following conclusions can be drawn:

- There is a significant difference between the extension method before the Covid-19 pandemic and the extension method during the Covid-19 pandemic.
- Changes in counseling methods during the Covid-19 pandemic were caused by government policy factors, the quantity of meetings and extension materials

#### 4.2. Recommendation

After analyzing the P2L counseling method before and during the Covid-19 pandemic, here are some suggestions and recommendations that can be taken into consideration by the parties concerned:

- It is better to apply extension methods that are more effective and can reach all members of the Pekarangan Pangan Lestari (P2L) group and not just monitor through their respective group leaders
- It is recommended that the extension activities of the Pekarangan Pangan Lestari (P2L) are carried out regularly and on a scheduled basis so that participants or group members can adjust their schedule to activities related to this activity.

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