



# Farmers' Perceptions of the Competence of Agricultural Instructors in Karang Sidemen Village

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**Abstract:** Extension workers have a big role in the success of farming activities in an area and can indirectly have a big influence on the welfare of farmers in particular and the success of agricultural activities in general. The aim of carrying out this research is to describe the relationship between farmers' perceptions of the competency of agricultural instructors and at the same time determine the variables that influence farmers' perceptions of the competency of agricultural instructors in terms of farmer characteristics, farming business characteristics and the quality of extension. This research uses an exploratory descriptive approach with a survey method using interviews and the help of questionnaires. The sample was determined by quota sampling, namely 4 people in each agricultural farmer group consisting of the chairman and active members. Data are presented on a Likert scale, and relationship analysis uses the Rank Spearman statistical test. The results of the analysis of respondents' perceptions of instructor competence in terms of personality (2.87), andragogic (2.60), professional (2.63), and social (2.64) variables were at medium criteria (2-3). The relationship between each variable of personal characteristics, farming characteristics, and quality of extension with respondents' perceptions of PPL competency shows a real relationship with the variables of farming experience, land area, market accessibility, land ownership status, extension materials, extension methods, and extension media, where the extension method and extension material variables have the highest correlation coefficient among the others, namely (0.642) and (0.513) which are classified as a strong relationship level (0.51-0.75) at a confidence level of 0.01%.

**Keywords:** Correlation coefficient; Exploratory descriptive; Extension; Perception; Quota sampling

## Introduction

Agriculture is a national strategic sector with a role in fulfilling the basic human need for food, as a contributor to gross domestic income (GDP), a foreign exchange earner, a workforce absorber, and the main source of rural household income (Zulfikar et al., 2018). Agricultural development cannot be separated from the 5 agricultural agribusiness subsystems which consist of the upstream subsystem, farming subsystem, management subsystem, marketing subsystem, and supporting services subsystem. The main targets of agricultural activities are achieving food sovereignty,

increasing the competitiveness of agricultural commodities, and improving farmers' welfare (Febrianti, 2018).

Indonesia can naturally achieve this main target, considering that Indonesia has extensive agricultural land with people who mostly work as farmers. However, facts on the ground show that the trade balance value of the agricultural subsector, especially Indonesian food crops, actually has negative export and import values (Sari, 2014). Ningsih, (2016) added that the competitiveness of Indonesian agricultural products is still less than that of the five main ASEAN countries (Malaysia, Thailand, Singapore, the Philippines, and

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Vietnam). Based on the BPS report (2023), it predicts that in 2023, the rice harvest area will decrease by 255.79 thousand ha or 2.45% compared to the rice harvest area in 2022 of 10.45 million ha. Apart from that, rice production in 2023 is also estimated to decrease by 1.12 million tons of milled dry grain (GKG) or 2.05% compared to rice production in 2022 which was 54.75 million tons of milled dry grain (GKG). This illustrates that agricultural resources in Indonesia, especially food commodities, are still not managed well based on sustainability principles.

Sustainable agriculture is defined as an agricultural system that can provide sustainable benefits for the use of natural resources, which in its implementation takes into account ecological, social, cultural, economic, political, and technical aspects to be maintained, regulated, and maintained so that they remain balanced, thereby supporting the sustainability of its benefits (Ardiyanto, 2021, Arwati, 2018 & World Forest Movement, 1992). This concept is also in line with the 2020-2024 medium-term agricultural development targets to realize advanced, independent, and modern agriculture towards an advanced Indonesia that is sovereign, independent and has a personality based on cooperation.

Primarily, the success of the sustainable agriculture concept will be achieved by focusing on farmers as the agricultural business actors at the on-farm level, by ensuring that developments in agricultural science and technology can reach farmers and then be applied in their farming activities. This is where extension activities come as a catalyst by providing non-formal education to farmers so that farmers are willing and able to organize themselves to access market information, technology, capital, and other resources to increase productivity, business efficiency, income, and welfare, as well as increase awareness in preserving environmental functions. As Muktasam (2023) views, the extension has a strategic position and role in strengthening the capacity of human resources and social capital which has an impact on the availability and quality of natural resources, financial resources, and physical resources.

Facts on the ground show that the urgency contained in the meaning of the word extension has not yet been realized. Remember that extension is still considered a theory, not a tool or movement to create or realize change and improve the lives of farmers and their families. For example, research by Paginian et al., (2021) found that the weaknesses of agricultural extension in Landak Regency are the lack of monitoring of extension performance, lack of extension technical personnel, little extension funds, and limited extension facilities and infrastructure. Of course, this will have a direct impact on the slow increase in farmers' welfare. However,

extension practices can also provide significant changes. For example, research by Hayati et al. (2022) shows that the role of extension workers can increase the participation of women forest farmers in community forest management in Central Lombok which has an impact on improving the family economy as well as fulfilling household food needs.

Therefore, the problems and successes of extension practices will give rise to farmers' perceptions of the instructor's competency abilities in carrying out their duties and functions in the field. Perception itself is defined as a person's view of a situation, fact, or action which is influenced by various factors, including a person's experience and the values attached to the observer.

Research related to farmers' perceptions of extension competence, especially at the village level, is very necessary to carry out, considering that villages as certain community entities have their views on program implementation. We also must not forget Sjaf's statement (2019) that the concept of sustainable agriculture cannot be separated from villages, as the smallest part of the country's territory is closest to the community and is the center for the development of on-farm farming businesses.

Departing from the paradigm above, this research aims to describe the relationship between farmers' perceptions of the competency of agricultural instructors and at the same time determine the variables that influence farmers' perceptions of the competency of agricultural instructors in terms of farmer characteristics, farming business characteristics, and the quality of extension in Karang Sidemen Village.

## Method

This research was conducted in Karang Sidemen Village, North Batukliang District, Central Lombok Regency for 2 months, starting from April 2023 - June 2023. This research used an exploratory descriptive research design to describe situations and events that had been observed deliberately and carefully (Hayati, 2018).

In its implementation, it is carried out using a survey method through interviews using questionnaires aimed at farmers including: (a). Respondent characteristics (age, level of formal education, participation in training), (b). Characteristics of the respondent's farming business (farming experience, land area, land ownership status, accessibility of financial institutions, accessibility of agricultural production facilities and infrastructure, and market accessibility), (c). Quality of extension (extension intensity, extension materials, and extension methods),

and (d). Respondents' perceptions of instructor competence in personality, pedagogical, professional, and social aspects.

The research sample was determined using quota sampling in each farmer group, namely by taking a sample of 4 people in a group with 1 chairman and 3 active members who often take part in counseling, so that the total of respondents interviewed was 40 people.

*Data Analysis*

Analysis of data related to farmers' perceptions of instructor competence was carried out with the help of a statistical test application, which is the SPSS 26 program to see the level of closeness of the relationship between independent variables using the Spearman Rank test at a confidence level of 0.05% and 0.01% with the Formula 1.

$$r_s = 1 - \frac{6 \sum_{i=1}^N di^2}{N^3 - N} \tag{1}$$

Description:

rs = Spearman rank correlation coefficient

di = The difference between the rankings for xi and yi

N = Number of data pairs

**Results and Discussion**

*Personal Characteristics of Respondents*

The personal characteristics of respondents based on field data are presented in Table 1.

**Table 1.** Personal Characteristics of Respondents

Category	∑n	%
X1.1 Age		
Young (≤ 25 years)	0	0
Adult (26-45 years)	23	57.5
Elderly (≥ 48 years)	17	42.5
X1.2 Formal Education		
Low (0-6 years)	8	20
Medium (9-12 years)	23	57.5
High (>12 years)	9	22.5
X1.3 Participation in Training		
Low (0 times)	18	45
Medium (1-2 activities)	18	45
High (>2 activities)	4	10

Table 1 shows that the dominance of farmer respondents is in the adult age range (26-45 years) at 57.5%. The high percentage of respondents who are of productive age in the range of 26 to 45 years will have a positive impact on the higher chances of more successful extension activities in the future because adults tend to have a stronger physical and mental condition and are more ready to absorb and adopt innovation (Zulfikar et al., 2018). In line with the research results of Abdurrahman et al. (2023) which state that the

productive age is faster in adopting technological innovations that provide economic improvements for horticultural farmers in Kayangan and Selamat sub-districts, North Lombok. Furthermore, Widakdo et al., (2021) stated that the age category of elderly farmers (≥ 46 years) will be in line with the reduced ability of farmers to adopt innovations caused by factors of decreased thinking power as a result of declining health levels, but will have advantages in terms of high emotional stability. Apart from that, the data shows that there are no farmer respondents who are young (≤ 25 years). Susilowati (2016) explained that this condition is possible because the younger generation is not very interested in working in the agricultural sector due to factors including 1) the agricultural sector is considered less prestigious, has high risks, lacks stability and sustainability of income; 2) the area of land controlled is increasingly narrowing, the diversity of businesses and industries in both the agricultural and non-agricultural sectors is not developing in the village; 3) the management of many farming businesses has failed; 4) lack of policy support for young or novice farmers; and 5) trends in worldview among youth in the postmodern era.

The respondent's level of education will have an impact on increasing the respondent's level of knowledge and ability to respond to the circumstances they face, as well as playing a role not only as an individual asset but also an asset for society (Maulina et al., 2015 & Widakdo et al., 2021). Field data shows that the distribution of respondents in terms of education level is in the medium category (57.5%) and 22.5% of them have a high level of education. To increase the dissemination of extension information, farmer respondents who have a high level of education can act as independent extension agents, so that all farmers can obtain information equally from extension activities carried out by the sub-district level extension UPT. The research results of Lukuyu et al. (2012); Kiptot et al. (2014) and Riana et al. (2015) stated that independent extension workers can act as motivators, transmitters of information as well as trainers for other farmers, so that extension activities will be more effective and efficient, especially in terms of disseminating extension innovations and farmer-to-farmer learning systems.

Participation in farming training is related to the number of training participants that the respondent has attended during the last 2 years to improve their competency. Based on Table 1, it is known that the majority of respondents were in the low to medium category with the same percentage, namely 45%. Hayati et al. (2023) stated that the higher the participation of farmers or fishermen in non-formal education or training, the greater the knowledge, attitudes, and skills

of the farmer or fisherman, which will have an impact on the food security status of the household.

*Characteristics of Respondents' Farming Businesses*

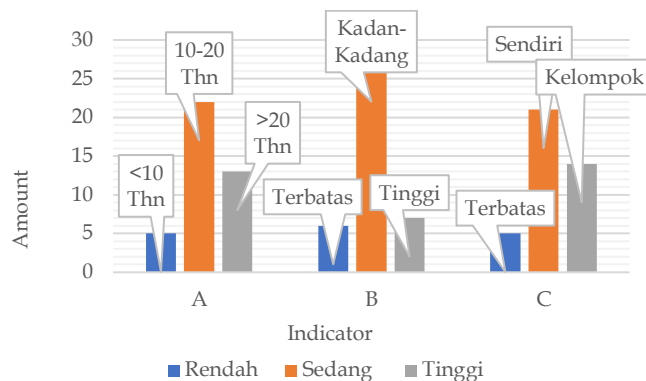
The characteristics of respondents' farming businesses based on data found in the field are presented in Table 2.

**Table 2.** Characteristics of Respondents' Farming Businesses

Category	Σn	%
<b>X2.1 Farming Experience</b>		
Low (Score 3-5)	9	22.5
Medium (Score 6-7)	22	50
High (Score 8-9)	9	22.5
<b>X2.2 Land Area</b>		
Narrow (2000-18000 m2)	38	95
Medium (18.001-34000 m2)	2	5
Area (>34.000 m2)	0	0
<b>X2.3 Land Ownership Status</b>		
Low (Rent/Pawn)	1	2.5
Medium (Own)	31	77.5
High (Personal+rent/pawn)	8	20
<b>X2.4 Accessibility of Financial Institutions</b>		
Low (Score 3-5)	14	35
Medium (Score 6-7)	20	50
High (Score 8-9)	6	15
<b>X2.5 Accessibility of Saprodi</b>		
Low (Score 2-7)	39	97.5
Medium (Score 8-12)	1	2.5
High (Score 13-16)	0	0
<b>X2.6 Accessibility of Market</b>		
Low (Score 3-5)	39	97.5
Medium (Score 6-7)	1	2.5
High (Score 8-9)	0	0

Farming experience is related to the length of time a respondent has been working in the agricultural sector, his ability to recognize technical obstacles, and his ability to solve problems in farming. The data shows that the respondents' farming experience is in the medium category (55%). This is because the majority of respondents in terms of length of farming (A) are in the medium category (10-20 years), followed by the ability to recognize technical obstacles (B) in the occasional/moderate category, as well as in terms of the ability to solve problems in farming. (C) Who are classified as moderate or in other words dominantly seek help themselves (Figure 1). This indicates that the role of agricultural instructors in Karang Sidemen village as agricultural consultants and supervisors has not been fully optimal. Bearing in mind that the success of extension workers as consultants should be able to provide instructions in the form of work examples or research applications in solving problems faced by farmers. As Vintarno et al. (2019) stated agricultural extension workers are agents of change or spearheads for agricultural development. Of course, as an extension

agent, you must have serious commitment and responsibility in planning agricultural quality (Nurmayasari et al. 2020) and developing agricultural technology and innovation (Sofia et al. 2022).



**Figure 1.** Farming Business Experience

The land area of respondents in this study was predominantly in the narrow land area category (2,000 m<sup>2</sup>-18,000 m<sup>2</sup>), namely 95%. Based on the results of research by Andrias, et al., (2017), land area has a positive influence on agricultural production and income, with a relatively large level of influence with an R<sup>2</sup> value (0.999).

Land ownership status is related to the status of land rights cultivated by respondents in farming activities. The data shows that most of the respondents were in the medium category (Own), namely 77.5%. Zulfikar et al., (2018) in their research stated that land ownership status has a positive relationship with farmers' opportunities to innovate and adopt technology that will be conveyed by extension workers.

Accessibility to financial institutions is seen from the origin of farming capital, the provision of access to capital by local banking institutions, and community opinion regarding the ease of obtaining capital while running a farming business. The data shows that the majority of respondents are in the medium category in terms of accessibility to financial institutions. This is because 72.25% of respondents had their farming capital sourced from private sources, then the majority of respondents (52.5%) stated that banking institutions had provided capital (BRI, Mandiri, Bank Komida, and Bank Mekar), then in terms of ease in obtaining capital is in the range of easy to very easy, meaning that respondents are not too concerned about capital.

Accessibility to production facilities and infrastructure (saprodi) is related to the ease of farmers in obtaining agricultural production facilities and infrastructure (seeds, fertilizer, medicine, and animal feed). The results of field findings (Table 2) show that the majority of respondents (97.5%) have low accessibility to production facilities and infrastructure.

This will have an impact on the low ability of farmers to run their farming businesses and will also directly impact on constraints in agricultural development activities at the regional level, and may indicate that production facilities and infrastructure that benefit farmers are still not distributed evenly. Following what Sugiantara (2019) said, the stimulus is needed in the form of affordable prices for production facilities and ease of obtaining facilities and infrastructure so that farmers are more active and enthusiastic in running their farming businesses. Furthermore, the role of extension workers as agricultural facilitators has not been implemented at all in Karang Sidemen Village. Marbun et al. (2019) stated that one of the roles of extension workers should be to provide solutions or convenience in terms of business partnerships, market access, capital, provision of agricultural production facilities, and infrastructure in advancing farming businesses within the work area of agricultural extension agents.

Market accessibility is related to the ease of respondents in marketing the results of their farming business. The data shows that respondents' accessibility to the market is still relatively low because 97.5% of respondents are in this value range. This is because the respondents' farming results are mostly sold to middlemen, and consumed for their own needs and because the role of farmer groups in accommodating farming products in the Karang Sidemen Village area does not yet exist. This means that farmer group organizations have not been able to increase the scale of agricultural businesses, as a forum for increasing development participation and also as a function of representing the people in the village (Syahyuti, et al. 2015). This is proven by findings in the field which show that planning is only dominated by administrators and excludes members of farmer groups who are not administrators. In line with the research results of Mutiah et al. (2018) the role of beef cattle breeder groups is still relatively lacking in South Bontolangkasa Village, South Sulawesi. Furthermore, farmer groups are the main component in agricultural extension activities, thus indicating that the role of agricultural instructors in Karang Sidemen village has not been able to create social capital in the form of participation of farmer members and collaborative networks between farmer group members in increasing the value of agricultural commodities. Therefore Untari et al. (2022) argue that to increase farmer participation and cooperation, appropriate approaches and strategies are needed regarding aspects of fairness in the role of farmer members in every decision-making, fairness in access to information, improving the quality of extension services and most importantly, the appointment of quality agricultural instructors.

*Quality of Extension*

**Table 3.** Quality of Extension

Category	∑n	%
X3.1 Extension Intensity		
Low (<2 times)	29	72.5
Medium (2-3 times)	8	20
High (> 3 times)	3	7.5
X3.2 Extension Materials		
Low (score 4-7)	0	0
Medium (score 8-11)	32	80
High (score 12-15)	8	20
X3.3 Extension Methods		
Low (score 1)	0	0
Medium (score 2-3)	25	62,5
High (score >4)	15	37.5
X3.4 Extension Media		
Low (score 1)	30	75
Medium (score 2-3)	5	12.5
High (score >4)	5	12.5

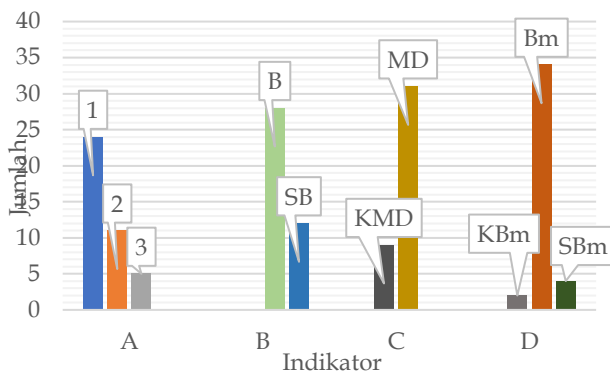
Extension intensity is related to the number of extension courses attended by the respondent in the last two years. Table 3 shows that the distribution of respondents was dominant at low intensity of counseling as much as 72.5% who only attended counseling less than 2 times. The low intensity of extension services that respondents participated in was due to the extension activities only focusing on 1 or 2 farmer groups in the 1-year extension program. The existence of intensive counseling can increase the family's productive economy (Zuyyina & Fakhruddin, 2020), increase farmer knowledge (Nurdayati et al. 2021), and increase farmer productivity (Latif et al. 2022).

The extension material is seen from several aspects (Figure 2) which are then accumulated and are in the medium category range of 80% (Table 3). This is because most farmers only follow one material presented by the instructor, namely pest control material. Even though there is still material that is delivered to farmers, including material for preparing group administration, making organic fertilizer, and cultivating land. Based on facts in the field, the reason that only a few farmers participate in extension activities is due to limited information and the timing of the extension implementation which is not appropriate for farmers' free time. This fact is in line with Rahayu's research results (2017) which stated that information flow was uneven and reached KWT Sido Lestari members as a whole due to the concentration of communication flows only on certain figures, thus hampering the Sustainable Food Home Area (KRPL) program. Bulkis (2018) also added that this fact is possible that many farmers still do not have the awareness to actively participate in the activities of farmer groups in their environment. Apart

from that, the timing of the extension is not appropriate for the farmers' free time due to personal busyness and daily work being prioritized by members of the extension group as part of efforts to fulfill daily household needs. Allen et al. 2015).

In the context of extension materials, to improve the quality of extension it should be adapted to the potential that exists in Karang Sidemen Village. Based on several studies that have been carried out in Karang Sidemen Village regarding village potential, including the disclosure of 44 types of local food plants (Anwar et al. 2023) and the disclosure of plants with medicinal potential (Valentino et al. 2022; Hadi et al. 2023) The preparation of extension programs and innovation in land management methods should be based on these data. This aims to increase the economic value of managed farmers' land while maintaining the food security of farming households and contributing to preserving biodiversity based on the Karang Sidemen rural typology. The results of research by Dayat & Anwarudin, (2020) show that the more appropriate the material delivered by instructors is to farming practices and in accordance with land typology, it will influence farmers' perceptions of the quality of instructors in providing solutions and increase production as well as developing farmer competence.

In terms of interest in counseling (B) 70% of respondents stated they were interested (Bt), in terms of ease of application of the material in the field (C) 77.5% of respondents said the material presented was easy to understand (MD), then in terms of usefulness of the material (D) 85 % of respondents stated that the material presented was useful (Bm).



**Figure 2.** Indicators of Extension Materials

Note: A (Variation in the amount of material obtained by respondents), B (Interest in the extension material), C (Ease of application of the material in the field), D (Usefulness of the extension material), 1,2,3 (Number of variations), Bt (Interested), SB (Very Interested), MD (Easy to understand), KMD (Not easy to understand), KBm (Less useful), Bm (Useful), SBm (Very useful).

Based on the data in Table 3, it is known that the extension method indicator shows the highest

percentage in the medium category, namely 62.5%. This is due to several factors such as the number of extension methods used is still limited to farm visits, method demonstrations, and results demonstrations. However, there are still many extension methods that can be applied, including home visits, internships, exhibitions, field schools, talks, and indirect methods, namely through mass media. Wicaksono et al. (2016) added, that there is a significant direct influence between the competency of agricultural instructors and their performance, especially about how instructors utilize information and communication technology in disseminating agricultural information to farmers. Apart from that, the intensity of internships can increase farmers' knowledge of using compost fertilizer in Pogalan village, Trenggalek (Aprilianti et al. 2020).

Based on Table 3 in terms of the use of extension media used, 75% of respondents stated that the extension media used was low. Bearing in mind, the use of outreach media is still focused only on blackboards and a small portion uses leaflets, brochures, posters, and projectors. According to Ahriadi's research results (2015), outreach media such as leaflets, pamphlets, and brochures are quite effective in the outreach process, while the most effective media used is a projector. The reason is that it can help increase farmers' reasoning power in receiving counseling so that it can encourage changes in their level of knowledge, thought patterns, attitudes, behavior, and actions and can encourage farmers to try new things that can support the progress of their farming business. Furthermore, in facing the development of communication and information technology, the phenomenon of online social media can be used by extension workers and farmers to obtain technical and economic information quickly and use it effectively and efficiently in decision-making in the agricultural sector (Destrian et al. 2018).

Research by Safitri et al. (2021) proves that the use of social media or cyber extension in Tiumang District, Dharmasraya Regency can increase accuracy, effectiveness, and efficiency in conveying information by agricultural extension actors (extension workers and farmers), increasing the intensity of learning and pilot activities in discussion forums on social media and increasing the productivity of farmers' farming which has an impact on increasing income and increasing farmers' welfare. Furthermore, Alif et al. (2023) added that tidal swamp farmers in Sungai Kambat village, South Kalimantan use social media to look for opportunities for farming collaboration. However, Hayati's research (2022) proves that not all uses of social media have advantages, one of which is websites. Websites have weaknesses in terms of disseminating information but have advantages as sources of

information. Hayati (2022) further stated that the last education variable has a significant influence at the 0.05% level with a significance value of 0.039 in the context of the use of cyber extensions or social media.

**Table 4.** Respondents' Perceptions of Extension Officer Competence

Variable	STS (1)	TS (2)	S (3)	SS (4)	Percep tion	Desc
Personality	1	82	286	31	2.87	Medium
Andragogic	10	145	241	4	2.60	Medium
Professional	2	132	223	3	2.63	Medium
Social	10	110	239	1	2.64	Medium

The instructor's personality competency is defined as the instructor's ability to increase enthusiasm for learning by his or her inherent personality (Dodengo, et al., 2021). Table 4 shows that the respondents' perception of instructor competence in terms of their personality is moderate, namely in the range of 2-3. This is due to the farmer's perception of the statements submitted regarding personality from a total of 10 questions, 7 of which are included in the medium category such as aspects of concern in spending time (2.60), leadership of the instructor (2.83), sense of empathy (2, 93), discipline (2.80), trust (2.98), responsibility (2.85), and closeness of the instructor to farmers (2.53). Huda et al. (2009) stated that the personality competency of instructors is moderate because agricultural instructors have a good understanding and belief in concepts related to personality, namely empathy, openness, responsibility, and role modeling, but have not implemented them well as actions. Furthermore, several aspects such as the ability to be a role model (3.00), politeness (3.03), and the aspect of respecting farmers by listening to their opinions (3.15) are included in the high category. This condition shows that the personality ability of agricultural instructors as role models and willingness to listen to farmers' opinions will increase farmers' decisions to adopt integrated farming innovations, including collective decisions to disseminate farming technology while strengthening farmer independence (Indraningsih, 2016).

Andragogic competence relates to the ability of extension workers to carry out non-formal education for farmers in the hope of producing good performance by their duties (Zulhafandi & Arbain, 2023). Based on the results of data processing, farmers' perceptions of extension workers' andragogics (Table 4) show that they fall into the medium category. This is because of the total of 10 statements submitted, respondents chose a value range of 2-3. In detail, the results of respondents' perceptions include the ability to identify needs (2.58), explain material (2.88), create breakthroughs (2.43), view

farmers as colleagues (2.70), involvement in preparing extension programs ( 2.65), farmers' needs are included in the extension program (2.65), activities are by the program (2.78), routine assessment of the program (2.28), the ability of extension workers to assess the success of the program (2.43), and the ability to provide input to farmers (2.63). To improve the andragogic abilities of agricultural instructors, instructors must be willing to evaluate learning, at least at the stage of reviewing, evaluating learning outcomes, and providing follow-up (Mubtasim, 2017).

According to Yoder (1999) cit Maulina, et al., (2015) the professional competence of extension workers includes administrative competence, program planning, program implementation, teaching ability, communication, ability to understand human behavior, maintaining professionalism, and evaluation competence. Table 4 informs that the instructor's competency in terms of professionalism is in the medium category (2.63). This is in line with respondents' perceptions which are in the 2-3 value range, both in terms of the ability to realize the importance of learning (2.70), the ability to package material that is interesting and easy to understand (2.78), the use of interesting ways of learning ( 2.55), the ability to develop farmers' interest in learning (2.53), mastery of the material (2.93), the extent to which the instructor knows his area (2.70), the ability to analyze problems in his area (2.78) the ability of the instructor to develop farmer groups (2.58), and developing farmer entrepreneurship (2.15).

The instructor's social competence is related to the instructor's ability to interact socially so that he can be accepted by the target community, such as his ability to resolve conflicts and other related abilities (Sutrisno, 2016). Based on Table 4, it is known that farmers' perceptions of the social competence of extension agents are classified as moderate (2.64). This is because of the total of 9 statements, 8 of them are in the 2-3 range, such as the aspect of ease of talking with extension workers (2.93), service to farmers' needs (2.65), the perception that extension workers are farmers' partners (2.70 ), the ability to work together (2.65), the ability to socialize (2.85), the ability to resolve conflicts (2.05), build a sense of solidarity (2.50), build a sense of mutual trust (2.43) and only high in the ability good language (3.03).

*The Relationship of Each Variable X to Variable Y*

To see each relationship between variables X1 (respondent characteristics), X2 (farming characteristics, and X3 (Extension quality) on instructor competency (Personality, Andragogic, Professional and Social) is presented in Table 5

**Table 5.** The Relationship between Variables X1, X2, and X3 with Perception of Competency Y

Variable Independent	Perceptions of Competence				
	Y	Y1.1	Y1.2	Y1.3	Y1.4
X1. Personal Characteristics of Respondents	0.005	0.101	-0.115	-0.096	0.18
X1.1 Age	0.017	0.125	-0.106	-0.076	0.144
X1.2 Formal Education	-0.021	-0.142	0.067	0.005	0.024
X1.3 Participation in Training	0.097	0.263	0.025	0.132	-0.061
X2 Characteristics of Respondents' Farming Business	.403*	0.278	.379*	.427**	.313*
X2.1 Farming Experience	.426**	.364*	.362*	.391*	.423**
X2.2 Land Area	.389*	0.272	.370*	.410**	0.3
X2.3 Land Ownership Status	.367*	0.262	.383*	.409**	.354*
X2.4 Accessibility of Financial Institutions	0.12	0.035	0.121	0.146	0.072
X2.5 Accessibility of Saprodi	0.179	0.188	0.168	0.187	0.091
X2.6 Market Accessibility	.341*	.442**	0.257	.329*	0.209
X3 Quality of Extension	.572**	.525**	.456**	.558**	.509**
X3.1 Extension Intensity	0.257	0.267	0.168	.350*	0.146
X3.2 Extension Materials	.513**	.346*	.420**	.470**	.559**
X3.3 Extension methods	.642**	.708**	.515**	.592**	.509**
X3.4 Extension Media	.419**	.393*	.391*	.400*	0.291

Description: \*\* Correlation is significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed), instructor competence (Y), personality competence (Y1.1), andragogical competence (Y1.2), professional competence (Y1.3) and social competence (Y1.4)

*The Relationship between Respondents' Personal Characteristics and Farmers' Perceptions of Competency*

Based on the data in Table 5, it is known that the respondent characteristic variables (age, formal education, and participation in training) do not have a real relationship with farmers' perceptions of the competency of civil servant instructors (personality, andragogic, professional, and social) at both the 1% and social significance levels. 5%.

*The Relationship between Respondents' Farming Characteristics and Farmers' Perceptions of Competency*

The data shows that several variables included in the respondents' farming characteristics have a real relationship with farmers' perceptions of the competency of civil servant instructors in terms of personality, andragogic, professional, and social at both the 1% and 5% confidence levels. Some of the influencing variables are (1) Farming experience has a real and positive relationship to the personality, andragogic, professional, and social competence of instructors, or in other words, the more experienced a farmer is, the higher his perception of the competency of civil servant instructors will be, (2) Variables The area of agricultural land has a real and positive relationship with farmers' perceptions of andragogic and professional competence, then it has no relationship with the personality and social aspects of the instructor, meaning that the larger the farmer's cultivated land, the higher the level of farmer's perception of andragogic and professional extension. (3) The land ownership status

variable has a real and positive relationship with farmers' perceptions of the personality, andragogic, professional, and social competence of instructors, and (4) the market accessibility variable has a real and positive relationship with farmers' perceptions of personality, andragogic and professional competence. Extension meaning that the higher the farmer's accessibility to the market, the higher the farmer's perception of the personality, andragogic and professional competence of the extension agent.

*The Relationship between Extension Quality and Farmers' Perceptions of Competence*

The data shows that several variables included in the quality of extension have a real relationship with farmers' perceptions of the competency of civil servant instructors in terms of personality, andragogic, professional, and social at both the 1% and 5% confidence levels. Some of the influencing variables are (1) Extension material which has a real and positive relationship to the personality, andragogic, professional, and social competence of the instructor, or in other words, the more appropriate the extension material delivered by the instructor, the higher the farmer's perception of the competency of civil servant instructors. also, (2) Extension methods have a real and positive relationship with the personality, andragogic, professional, and social competence of the instructor in other words, the more varied the extension methods used by the instructor, the higher the farmer's perception of the personality, andragogic, professional and social



competency instructor. Furthermore, the extension media has a significant relationship with farmers' perceptions regarding personality, andragogy, and professionalism, while it has no relationship with perceptions of the extension workers' social competence.

## Conclusion

The results of the analysis of respondents' perceptions of instructor competence in terms of personality (2.87), andragogic (2.60), professional (2.63), and social (2.64) variables were at medium criteria (2-3). The relationship between each variable of personal characteristics, farming characteristics, and quality of extension with respondents' perceptions of PPL competence shows a real relationship in the variables of farming experience, land area, market accessibility, extension materials, land ownership status, and extension methods, as well as extension media. Where the extension method and extension material variables have the highest correlation coefficient among the others, namely (0.642) and (0.513) which are classified as a strong relationship level (0.51-0.75) at a confidence level of 0.01%.

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## Author Contributions

The first and second author, Arifuddin Sahidu and Hayati contributed to conceptualization, methodology, instrument preparation, and writing-original draft preparation. Third author, Muktasam, was also involved research implementation, data collection and analysis, and article writing. The fourth and fifth author, Niechi Valentino and Muhammad Anwar Hadi, guided throughout the research process, proofreading, analysis and contributed to writing the article.

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## Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

## References

- Abdurrahman, M., Sahidu, A., Hayati, Bachri, J., Siti, N., & Anwar. (2023). Adoption of horticultural innovations by smallholder farmers in North Lombok - Indonesia. *International Journal of Design & Nature and Ecodynamics*, 18(3), 573-581. <https://doi.org/10.18280/ijdne.180309>
- Ahriadi. (2015). *Efektivitas Penggunaan Media Penyuluhan Terhadap Perubahan Perilaku Petani Dalam Budidaya Tanaman Jagung di Desa Singa Kecamatan Herlang Kabupaten Bulukumba* (Undergraduated Thesis). Program Studi Agribisni Fakultas Pertanian Universitas Muhammadiyah Makassar, Makassar. Retrieved from [https://digilibadmin.unismuh.ac.id/upload/300-Full\\_Text.pdf](https://digilibadmin.unismuh.ac.id/upload/300-Full_Text.pdf)
- Alif, M., Septiana, N., & Bahriyah, E.N. (2023). Pemanfaatan media sosial bagi petani di lahan rawa pasang surut Desa Sungai Kambat. *Komunikologi: Jurnal Ilmiah Ilmu Komunikasi*, 20(1), 51-60. <https://doi.org/10.47007/jkomu.v20i01.578>
- Allen, H.F., Batubara, M.M., & Iswarini, H. (2015). Kendala penyuluhan dalam melaksanakan aktivitas penyuluhan pada usahatani kopi di Kecamatan Dempo Utara Kota Pagar Alam. *SOCIETA*, 4(2), 105-110. <https://doi.org/10.32502/jsct.v4i2.242>
- Andrias, A.A., Darusman, Y., & Ramdan, M. (2017). Pengaruh luas lahan terhadap produksi dan pendapatan usahatani padi sawah. *Jurnal Ilmiah Mahasiswa (Agroinfo Galuh)*, 4(1), 521-529. <http://dx.doi.org/10.25157/jimag.v4i1.1591>
- Anwar, L.A., Latifah, S., & Setiawan, B. (2023). Potensi tanaman pangan lokal pada kawasan hutan kemasyarakatan Wana Lestari Desa Karang Sidemen Kecamatan Batukliang Utara. *Wahana Forestra: Jurnal Kehutanan*, 18(1), 48-59. <https://doi.org/10.31849/forestra.v18i1.11033>
- Aprilianti, N.W., Sutoyo, & Purwanti, E.W. (2020). Persepsi petani terhadap penggunaan pupuk kompos pada usahatani padi di kelompok tani harapan Desa Pogalan Kecamatan Pogalan Kabupaten Trenggalek. *Jurnal Sosial Ekonomi Pertanian*, 13(2), 173-181. <https://doi.org/10.19184/jsep.v13i2.11765>
- Ardiyanto. 2020. Pertanian Berkelanjutan. Retrieved from <http://cybex.pertanian.go.id/mobile/artikel/95761/Pertanian-Berkelanjutan/>
- Arwati, S. (2018). *Pengantar Ilmu Pertanian Berkelanjutan*. Makasar: Inti Mediatama.
- Bulkis. (2018). Hambatan komunikasi yang dirasakan petani selama pembinaan petani padi (Oriza sativa) di Desa Oesao Kabupaten Kupang. *Jurnal Matematika, Saint, dan Teknologi*, 19(1), 25-36. <https://doi.org/10.33830/jmst.v19i1.125.2018>
- [BPS] Badan Pusat Statistik. (2023). *Berita Resmi Statistik* (No. 68/10/Th. XXVI, 16 Oktober 2023). Retrieved from

- <https://www.bps.go.id/pressrelease/2023/10/16/2037/luas-panen-dan-produksi-padi-di-indonesia-2023--angka-sementara-.html>.
- Dayat, D., & Anwarudin, O. (2020). Faktor-faktor penentu partisipasi petani dalam penyuluhan pertanian era otonomi daerah di Kabupaten Bogor. *Jurnal Agribisnis Terpadu*, 13(2), 167-186. <http://dx.doi.org/10.33512/jat.v13i2.9865>
- Destrian, O., Wahyudin, U., & Mulyana, S. (2018). Perilaku pencarian informasi pertanian melalui media online pada kelompok petani jahe. *Jurnal Kajian Komunikasi*, 6(1), 121-132. <https://doi.org/10.24198/jkk.v6i1.12391>
- Dodengo, E.S., Lainawa, J., Lenzun, G.D., & Tumewu, J.M. (2021). Analisis persepsi peternak terhadap kompetensi penyuluhan dalam pengembangan usaha peternakan sapi potong di Kecamatan Bacan Timur Tengah. *Zootec*, 41(1), 97-105. <https://doi.org/10.35792/zot.41.1.2021.32047>
- Febrianti, R. (2018). *Penyuluhan Pertanian*. Yogyakarta: Sentra Edukasi Media.
- Forest Movement. (1992). *Forest Principles-Report of the United Nations Conference on Environment and Development*. Retrieved from <https://www.wrm.org.uy/other-information/forest-principles-report-of-the-united-nations-conference-on-environment-and-development>.
- Hadi, M.A., Latifah, S., Aji, I.M.L., Valentino, N., & Prasetyo, A.R. (2023). Keanekaragaman jenis tumbuhan obat di hutan kemasyarakatan Wana Lestari Desa Karang Sidemen. *Journal of Forest Science Avicennia*, 6(1), 26-38. <https://doi.org/10.22219/avicennia.v6i1.21715>
- Hayati (2018). Peranan Penyuluh dan Perilaku Perempuan Tani dalam Mendukung Ketahanan Pangan Rumah Tangga di Lahan Sawah dan Lahan Kering di Kabupaten Lombok Tengah. Fakultas Pertanian. Lembaga Penelitian dan Pengabdian Kepada Masyarakat. Universitas Mataram. Mataram.
- Hayati. (2022). Factors influencing the use of cyber extension by gender based extensioners in supporting artificial intelligence in agriculture in NTB (case study of Mataram city). *Jurnal Penelitian Pendidikan IPA (JPPIPA)*, 8(6), 3187-3195. <https://doi.org/10.29303/jppipa.v8i6.4055>
- Hayati, Muktasam, Sayuti, R.H., and Valentino, N. (2022). Perspective in community forest management in central Lombok Regency. *IOP Conf. Series: Earth and Environmental Science*, 1107 012117. <http://dx.doi.org/10.1088/1755-1315/1107/1/012117>
- Hayati, Sahidu, A., Muktasam, Sari, N.M.W., & Valentino, N. (2023). Extension and behaviour fisherwomen in supporting household food security in West Lombok District. *IOP Conf. Series: Earth and Environmental Science*, 1153 012015. <http://dx.doi.org/10.1088/1755-1315/1153/1/012015>
- Huda, N., Sumardjo, Slamet, M., Tjitropranoto, P. (2009). Pengembangan kompetensi penyuluh pertanian dalam pendidikan jarak jauh universitas terbuka (ut): kasus alumni ut di wilayah Serang, Karawang, Cirebon dan Tanggamus. *Jurnal Komunikasi Pembangunan*, 7(2), 21-31. <https://doi.org/10.46937/720095685>
- Indraningsih, K.S. (2016). Pengaruh penyuluhan terhadap keputusan petani dalam adopsi inovasi teknologi usahatani terpadu. *Jurnal Agro Ekonomi* 29(1), 1-24. <http://dx.doi.org/10.21082/jae.v29n1.2011.1-24>
- Kiptot, E., & Steven, F. (2014). Voluntarism as an investment in human, social and financial capital: Evidence from a farmer-to-farmer extension program in Kenya. *Journal Agriculture and Human Values*, 31(2), 231-243. <http://dx.doi.org/10.1007/s10460-013-9463-5>
- Kuntariningsih, A., & Mariyono, J. (2013). Dampak Pelatihan Petani Terhadap Kinerja Usahatani Kedelai di Jawa Timur
- Latif, A., Ilsan, M., Rosada, I. (2022). Hubungan peran penyuluh pertanian terhadap produktivitas petani padi. *Wiratani: Jurnal Ilmiah Agribisnis*. 5(1), 11-21. <https://doi.org/10.33096/wiratani.v5i1.91>
- Lukuyu, B.F., Place, S., Franzel, & Kiptot, E. (2012). Disseminating improved practices: are volunteer farmer trainers effective. *The Journal of Agricultural Education and Extension*, 18(5), 525-540. <http://dx.doi.org/10.1080/1389224X.2012.707066>
- Marbun, D.N.V.D., Satmoko, S., & Gayatri, S. (2019). Peran penyuluh pertanian dalam pengembangan kelompok tani tanaman hortikultura di Kecamatan Siborongborong, Kabupaten Tapanuli. *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)*, 3(3), 537-546. <https://doi.org/10.21776/ub.jepa.2019.003.03.9>
- Maulina, S., Yulida, R., & Cepriadi. (2015). Tingkat kompetensi profesional penyuluh pertanian di Kecamatan Kampar Kabupaten Kampar. *Jom Faperta*, 2(1), 1-14. Retrieved from <https://jom.unri.ac.id/index.php/JOMFAPERTA/article/view/4091/3984>
- Mubtasim, A. (2017). *Penerapan Pendekatan Andragogi Melalui Metode Demonstrasi Pada Pembelajaran Life Skill Menjahit Program Paket C Di Uptd Skb Susukan Kabupaten Semarang*. (Undergraduated Thesis).

- Universitas Negeri Semarang, Indonesia. Retrieved from <https://lib.unnes.ac.id/29652/1/1201411045.pdf>
- Muktasam. (2023). *Penyuluhan Pertanian Fakta, Teori dan Aplikasinya Bagi Pemberdayaan Masyarakat*. Yogyakarta: Yayasan Sahabat Alam Rafflesia.
- Mutiah, A., Abdullah, A., & Nurlaelah, S. (2018). Identifikasi peranan kelompok sebagai wahana kerja sama pada kelompok peternak sapi potong pada peternakan rakyat. *Jurnal Agripet*, 18(1), 57-62. <https://doi.org/10.17969/agripet.v18i1.10971>
- Ningsih, E.A., & Kurniawan, W. (2016). Daya saing dinamis produk pertanian Indonesia di ASEAN. *Jurnal Ekonomi Kuantitatif Terapan (JEKT)*, 9(2), 117-125. <https://doi.org/10.24843/JEKT.2017.v09.i02.p04>
- Nurdayati, Widiarso, B. P., Pratiwi, D.E., & Wijaya, F.M.P. (2021). Analisis jalur pengetahuan, intensitas penyuluhan terhadap persepsi peternak. *Jurnal Penyuluhan*, 17 (1), 25-39. <https://doi.org/10.25015/17202132921>
- Nurmayasari, I., Viantimala, B., Gultom, D. T., Yanfika, H., & Mutolib, A. (2020). Partisipasi dan kepuasan petani terhadap kinerja penyuluh pertanian di Kecamatan Palas Kabupaten Lampung Selatan. *Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 6(1), 448-459. <https://doi.org/10.25157/ma.v6i1.3230>
- Paginian, E., Kurniati, D., Hamid, A.E., & Yusra, A. (2021). Strategi peningkatan kinerja penyuluh pertanian di Kabupaten Landak. *SEPA*, 17(2), 135-142. <https://doi.org/10.20961/sepa.v17i2.42734>
- Rahayu, W. (2017). *Jaringan Komunikasi pada Kelompok Wanita Tani Sido Lestari dalam Program Kawasan Rumah Pangan Lestari (KRPL) di Dusun Gondang Legi, Kecamatan Sutojayan, Kabupaten Blitar (Undergraduated Thesis)*. Universitas Brawijaya, Indonesia. Retrieved from [http://repository.ub.ac.id/id/eprint/5424/1/WE\\_NDY%20RAHAYU.pdf](http://repository.ub.ac.id/id/eprint/5424/1/WE_NDY%20RAHAYU.pdf)
- Riana, Purnaningsih, N., & Satria, A. (2015). Peranan penyuluh swadaya dalam mendukung intensifikasi kakao di Kabupaten Sigi Provinsi Sulawesi Tengah. *Jurnal Penyuluhan*, 11(2), 201-211. <https://doi.org/10.25015/penyuluhan.v11i2.10583>
- Safitri, E., Arif, E., & Asmawi. (2021). Penggunaan media sosial dalam penyuluhan pertanian di Kecamatan Tiumang Kabupaten Dharmasraya. *Jurnal Niara*, 13(2), 92-101. <https://doi.org/10.31849/niara.v13i2.4852>
- Sari, R.H. (2014). Analisis Impor Beras di Indonesia. *Economics Development Analysis Journal (EDA)*, 3(2), 320-326. <https://doi.org/10.15294/edaj.v3i2.3838>
- Sjaf, S. (2019). *Involusi Republik Merdeka*. Bogor: PT Penerbit IPB Press.
- Sofia, Suryaningrum, F.L., & Subekti, S. (2022). Peran penyuluh pada proses adopsi inovasi petani dalam menunjang pembangunan pertanian. *AGRIBIOS: Jurnal Ilmiah*, 20(1), 151-160. <https://doi.org/10.36841/agribios.v20i1.1865>
- Sugiantara, I.G.N.M. (2019). Pengaruh tenaga kerja, teknologi dan pengalaman bertani terhadap produktivitas petani dengan pelatihan sebagai variabel moderating. *Buletin Studi Ekonomi*, 24(1), 1-17. <https://doi.org/10.24843/BSE.2019.v24.i01.p01>
- Sugiantara, I.G.N.M. (2019). Pengaruh tenaga kerja, teknologi dan pengalaman bertani terhadap produktivitas petani dengan pelatihan sebagai variabel moderating. *Buletin Studi Ekonomi*, 24(1), 1-17. <https://doi.org/10.24843/BSE.2019.v24.i01.p01>
- Susilowati, S.H. (2016). Fenomena penuaan petani dan berkurangnya tenaga kerja muda serta implikasinya bagi kebijakan pembangunan pertanian. *Forum Penelitian Agro Ekonomi*, 34(1), 21-34. <http://dx.doi.org/10.21082/fae.v34n1.2016.35-55>
- Sutrisno. (2016). Kinerja penyuluh pertanian dalam memberdayakan petani. *Jurnal Litbang*, 7(1), 69-80.
- Syahyuti, Suhaeti, R.N., Wahyuni, S., Zakaria, A.K., & Nurasa, T. (2015). *Organisasi Kesejahteraan Petani*. Bogor: PT Penerbit IPB Press.
- Untari, F.D., Sadono, D., & Effendy, L. (2022). Partisipasi anggota kelompok tani dalam pengembangan usahatani hortikultura di Kecamatan Pacet, Kabupaten Cianjur, Provinsi Jawa Barat. *Jurnal Penyuluhan*, 18(1), 87-104. <https://doi.org/10.25015/1820223603>
- Valentino, N., Latifah, S., Setiawan, B., Aji, I.M.L., & Hadi, M.A. (2022). Bioprospection of potential Mmedicinal plant diversity in the Wana Lestari Community Forest, Karang Sidemen Village. *Jurnal Penelitian Pendidikan IPA*, 8(SpecialIssue), 101-111. <https://doi.org/10.29303/jppipa.v8iSpecialIssue.2477>
- Vintarno, J., Sugandi, Y. S., & Adiwisastro, J. (2019). Perkembangan penyuluhan pertanian dalam mendukung pertumbuhan pertanian di indonesia. *Responsive*, 1(3), 90-96. <https://doi.org/10.24198/responsive.v1i3.20744>
- Wicaksono, P., Sugiyanto, S., & Purnomo, M. (2016). Faktor-faktor yang berkontribusi terhadap kinerja dan kompetensi penyuluh pertanian pada jenjang jabatan penyuluh pertanian ahli (Kasus di Malang, Jawa Timur). *Habitat*, 27(2), 85-93. <https://doi.org/10.21776/ub.habitat.2016.027.2.10>

- Widakdo, D.S.W.P.J., Holik, A., & Iska, L.N. (2021). Efek Usia dan Tingkat Pendidikan terhadap Kinerja Tenaga Bantu Penyuluh Pertanian. *Jurnal Penyuluhan*, 17(1), 52-59. <https://doi.org/10.25015/17202131614>
- Zulfikar, Amanah, S., & Asngari, P.S. (2018). Persepsi petani terhadap kompetensi penyuluh pertanian tanaman pangan di Kabupaten Aceh Utara. *Jurnal Penyuluhan*, 14(1), 159-174. <https://doi.org/10.25015/penyuluhan.v14i1.17556>
- Zulhafandi, & Arbain, M. (2023). Kompetensi andragogi penyuluh dalam mendukung ketahanan pangan di Provinsi Kalimantan Utara. *Jurnal Agrica Ekstensia*, 17(1), 1-8. Retrieved from <https://ejournal.polbangtanmedan.ac.id/index.php/agrica/article/view/125/67>
- Zuyyina, Y., & Fakhrudin, F. (2020). Pengaruh intensitas penyuluhan terhadap peningkatan ekonomi produktif keluarga. *Journal of Nonformal Education and Community Empowerment*, 4(1), 48-62. <https://doi.org/10.15294/pls.v4i1.36360>