TESDA Rice Extension Services Program and Agricultural Competence among Farm Field Student Farmers

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ABSTRACT: This study evaluated the Technical Education and Skills Development Authority Rice Extension Service Program (TESDA RESP) training program's effectiveness in enhancing agricultural competence among farm field student farmers. It examines the level of support provided by the program in terms of resources and training, explores its relationship with agricultural competence, and analyzes differences in program support and rice farmers' competence across demographic profiles. Data was gathered via quantitative correlational research, assessing student farmers' demographic profile in terms of age, educational background years of farming experience, participation in other TESDA training programs; perception of training delivery support; and level of agricultural competence in rice farming. The study was focused on the province of Misamis Oriental and conducted among farm field schools and training institutions that are recipients of the scholarship program under RESP. Statistical analysis indicates that Resource and Training Support significantly influences the agricultural competence of the student farmer respondents. Demographic profiles, however, show that it does not statistically affect student farmer's level of competence upon having completed the training program in the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization. The findings suggest that the TESDA RESP program effectively enhances agricultural skills, hence advocating for its sustainability to foster skilled rice farmers and agricultural workforce in Misamis Oriental.

KEYWORDS: Extension Services Program, Resource, Training, Competence,

I. INTRODUCTION

The heartbeat of the Philippines resonates within its agricultural landscape, which is the foundation of the country's sustenance, prosperity, and identity. Agriculture supports food security, economic stability, and the well-being of millions of Filipinos. In 2023, it remains a cornerstone of the nation's GDP, sustaining rural livelihoods. Central to this sector is rice, a major pillar of Filipino cuisine. However, production is constrained by low productivity, outdated practices, and limited access to modern agricultural technologies, affecting the very essence of a farmer's life. Despite its critical role, the sector faces significant challenges that hinder its growth and efficiency.

Republic Act No. 11203, an act liberalizing the importation, exportation, and trading of rice, lifting for the purpose the quantitative import restrictions on rice, and for other purposes enacted last February 14, 2019. The law foresees to be of great help to both farmers and consumers. With the quantitative tariffs of about 35 to 40 percent restrictions on imported rice, the Rice Competitiveness Enhancement Fund (RCEF) was established with an annual fund appropriation of 10 billion pesos in six years to fund programs for farm mechanization, seed development, propagation, and promotion, credit assistance, and extension services.

One of the vital components of RCEF is the Rice Extension Services Program (RESP), which benefits across 57 provinces. RESP's aim is clear: enhance the capabilities of farmers in rice and seed production, mechanization, and crucial skills, elevating their competitiveness and income.

This law stipulates that the Technical Education Skills Development Authority shall recognize and accredit the training modules developed under the program for its trainees to be eligible for TESDA Scholarship Grant, which shall also act as a core support to the RCEF and the PRIR 2030. Additionally, Section 13 of this act specifies that a fund shall be allocated and disbursed for Rice Extension Services for TESDA in the amount of PhP700 Million for teaching skills on rice production, modern rice farming

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techniques, seed production, farm mechanization, and knowledge/ technology transfer through farm field schools and TESDA Schools nationwide for the next six (6) years commencing year 2019.

Aligned with the Philippine Development Plan's vision for Ambisyon Natin 2040 for providing Filipinos with matatag, maginhawa, at panatag na buhay, the rice industry shoulders the responsibility of ensuring rice security. The Philippine Rice Industry Roadmap (PRIR) 2030 charts a course to enhance farmers' competitiveness, emphasizing increased yield, reduced production costs, enhanced resiliency, and safety. However, the challenge is tangible; a comparative cost analysis reveals the financial burden on local farmers compared to other Asian counterparts in Thailand and Vietnam.

Assessment of training programs' effectiveness, particularly on inbred rice production, seed certification, and farm mechanization, among many others, may be vital in informing appropriate policymaking, program improvement, and achievement of RCEF goals. It will provide salient results that can be used by the other players in building up the coordination process towards a speedier development of the agriculture sector and the general regional economic consolidation.

Resource refers to the support allocated to the TESDA RESP Scholarship Program specifically for the training on Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization through Farm Field School, such as financial support in the form of training cost amounting to Php9, 200.00 per student beneficiary, and a training support fund (TSF) amounting to Php2, 720.00 at Php160.00 per day which runs for 17 days; training materials, and infrastructure. The quality and availability of training materials, supplies, tools, facilities, and infrastructure is vital to the success of the RESP program. Potential issues may arise if these resources are scarce, impacting the overall effectiveness of the training program.

The free skills training and institutional competency assessment are managed by the Farm Field School (FFS), a Non-Training Regulation (NTR) training qualification titled Production of High-Quality Inbred Rice and Seed Certification and Farm Mechanization which is registered in accordance with Omnibus Guidelines on UTPRAS (TESDA Circular No. 07, series 2017) as a requirement to scholarship grant. While the provision of free skills training is a cornerstone of the TESDA RESP Scholarship Program, challenges may arise concerning the adequacy of resources allocated to these components the availability of up-to-date training materials and equipment, and appropriate training facilities to ensure the quality and relevance of the training.

On the other hand, training support refers to the training curriculum on the Production of High-Quality Inbred Rice and Seed Certification, and Farm Mechanization qualification; to the methodology of how it was being taught to the student farmers; and, lastly, it refers to the trainers. The effectiveness of the curriculum design, the method in the training, and the trainers' expertise are crucial factors that could influence the student farmers' effectiveness and overall learning experience. The training curriculum used for the Production of High-Quality Inbred Rice and Seed Certification, and Farm Mechanization qualification is a Non-Training Regulation which refers to programs registered to TESDA not covered yet by any appropriate training regulations (TVET Glossary of Terms, 4th Edition). Hence, trainers are using the facilitator's guide on Farmers Field School on Production of High Quality Inbreed Rice and Seed Certification, and Farm Mechanization (1stEdition) developed and funded by the Rice Competitiveness Enhancement Fund. Unlike TESDA's with training regulations qualifications all of the basic, common, and core competencies are clearly defined hence learning outcomes are specifically identified on what are the specific skills are required to become a competent and skilled rice farmer. However, the facilitators' guide includes various topics on pest management, local varietal selection and purification, farm mechanization, marketing, record keeping, and financial literacy.

In terms of training methodology, there will be a total of fourteen (14) sessions corresponding to seventeen days of training which will be conducted during the whole cropping cycle of the rice plant.

While trainers of the Farm Field Schools are generally farmer leaders and Farm Field School staff from their respective municipalities who undergo training of conducted by the Department of Agriculture- Agricultural Training Institute or by the PhilRice and become an Agricultural Extension Service provider; and eventually registered to TESDA as trainer under the RESP Program (TESDA Circular No. 053 series 2020).

The study aimed to understand how student farmers perceived the implementation of TESDA RESP Scholarship Program Support, encompassing Resource Support and Training Support. It has been almost four (4) years now since the inception of the RESP Program in the year 2020 at Misamis Oriental and is still being implemented in the following years; hence, understanding how student farmers perceived program implementation could be a tool for improvement of the program delivery specifically in the province of Misamis Oriental. The result of the study tried to determine the student farmer's knowledge, skills, and competence gained by participating in the Production of High-Quality Inbred Rice and Seed Certification, and Farm Mechanization conducted by Farm Field Schools and TESDA registered school under the TESDA RESP Scholarship Program.

The study of Biswas et al. (2021) suggests that agricultural extension services help improve the skills of rice farmers increase their knowledge of eco-friendly farming methods help promote environmentally sustainable farming practices and support economic growth in rural areas. To help rural rice farmers become more efficient and productive, the study by Biswas et al. (2021) recommends improving agricultural extension services and getting more farmers involved in training programs.

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The study was anchored to the theory of adult learning or andragogy developed by Malcolm Knowles wherein the concept or study aimed to show how adult learning was distinct and identified the learning styles that suit them best. Adult Learning is characterized by general ways wherein adults perceive learning and how they prefer to train through self-concept wherein adults thrive in independent learning and training scenarios; adult learner experience from which they draw knowledge and references; readiness to learn, adults want or are ready to learn when there is a reason; such as when it's directed towards growth and development related to their work; orientation of learning, adults are attracted to learning most when they know clear objectives that apply to their everyday lives and can learn practical skills that help them solve problems and work better, and motivation to learn, as adults wanted to learn for a reason to progress in work or to boost self-esteem.

The study by Okojie and Sun (2020), Foundations of Adult Education, Learning Characteristics, and Instructional Strategies outlines the key characteristics of adult learning methods, each defined to elucidate specific aspects of the learning process. Planning involves initiating the learning journey by providing learners with an overview or preview of the material or skills they will encounter. An illustration follows, wherein educators demonstrate or exemplify how the knowledge or practices being taught can be applied in real-world contexts, fostering a deeper understanding.

Moving to application, learners engage in hands-on practice to solidify their grasp of the material or skills. This phase is crucial for reinforcing learning through active participation. Within the realm of Deep Understanding, two critical components are identified; Reflection and Mastery. Reflection prompts learners to introspect and assess their progress, facilitating self-awareness and identification of areas for further growth. Meanwhile, Mastery encourages learners to evaluate their experiences against conceptual frameworks or external criteria, fostering a deeper comprehension and integration of the subject matter. Together, these characteristics form a comprehensive framework for adult learning, emphasizing active engagement, practical application, and self-directed evaluation to facilitate meaningful and enduring knowledge acquisition (Okojie & Sun, 2020).

Agricultural extension learning is understood by scholars as a key adult education learning method or andragogy used to educate and improve small-scale farmers' practices (Dave Foster, 2023). Biswas et al (2021) summarize a table of indicators used in relevant literature in measuring technical efficiency as a result of an agricultural extension service study revealed that extension had a significant and positive relation with technical efficiency participant farmers of the extension system could contribute more to enhance productivity than non-participants. Moreover, Biswas et al. (2021) also suggest that educated farmers can boost farm production.

A study by Red et al. (2021) investigated the effects of the Farmer Field School on the knowledge, attitude, practices, and profitability of rice farmers and showed that farmers who have undergone the training program through FFS have significantly had a higher level of knowledge, positive attitude, significant extent practice the skills and knowledge gained, and gain more profit as compared to farmers who did not undergo the training program through the FFS.

A rain-fed lowland rice production technology training intended to increase rice production and profitability of rice farmers in the Northern, Savana, and Northeast Regions of Ghana was carried out successfully. Based on the study sought to evaluate the success of the training along two key objectives – ascertaining the extent to which the training has contributed to an increase in rice yield of farmers and assessing the correlation between the components of land development and rice cultivation of the training project on rice yield. The findings of the study revealed that there was an increase in rice farmers' yield after the training and there was a positive correlation between land development as a component of the training and rice cultivation (Issahaku et al., 2022).

II. METHODOLOGY

The research adopted a qualitative research design to explore the associations among various factors related to student farmers' profiles. The investigation has specifically examined the relationships between age, educational background, years of farming experience, and other TESDA training programs undertaken by the respondents. Additionally, it assessed the correlation between the independent variable on TESDA RESP Scholarship Program support encompassing resource and training components; and the dependent variable on Agricultural Competence. To gather quantitative data, online surveys have been employed as the primary data collection method. These surveys covered a range of variables, including age, educational background, years of training experience, TESDA RESP program support that includes resources and training, and agricultural competency.

The statistical treatment for that study involved a multifaceted approach to analyzing the gathered data comprehensively. Descriptive statistics, such as mean, frequency, and percentages, were employed in Part 1 to summarize and present the profile of the respondents. Part 2 used inferential statistics, including correlation analysis, to explore relationships and potential predictors between variables. Additionally, Part 3 tested the relationship between variables using Pearson Moment Correlation. The Likert-type scale responses underwent statistical analysis to determine the central tendency and variability of participants' responses. Overall, the statistical treatment aimed to derive meaningful insights from the data, uncovering

associations and trends that understood students' perceptions of the training program support provided through the TESDA RES Program and their level of agriculture competence.

III. RESULTS AND DISCUSSION

Problem 1. What is the profile of student farmers as to:

      1.1 Age,

      1.2 Educational background,

      1.3 Years of farming experience, and

      1.4 Other training programs undertaken?

Table 1 which shows the profile of the respondents in terms of their age, educational background, years of farming experience, and other programs attended. As to age, it explains that the majority of participants are mostly adults aged 35-44 years old comprising 69 (23.31 percent). This result suggests that older populations are more interested in and involved in agricultural training, which may signify a desire for lifelong learning and skill improvement. This may also imply that this age group may have already a family where farming is their primary source of living.

According to the study by Biswas et al., (2021) farmers' technical efficiency which is positively and significantly influenced by socio-demographic factors like age, family size, education, and farming experience. The findings of the study further postulate that agricultural extension services programs have helped enhance the technical efficiency of the paddy farmers and increase the production level of rural paddy farmers.

Table 1: Respondents Profile.

Age	f	%
15-18 years old	1	0.34
19-24 years old	41	19.19
25-34 years old	62	20.95
35-44 years old	69	23.31
45-54 years old	68	22.97
55 years old & above	55	18.58
Total	**296**	**100**
Educational Background	**f**	**%**
Elementary Level	8	2.7
Elementary Graduate	21	7.09
High School Level	49	16.55
High School Graduate	94	31.76
College Level	67	22.64
College Graduate	57	19.26
Total	**296**	**100**
Years of Farming Experience	**f**	**%**
Less than 1 year	37	12.50
1-5 years	77	26.01
6-10 years	67	22.64
More than 10 years	115	38.85
Total	**296**	**100**
Other Training Programs Attended	**f**	**%**
None	252	85
Yes	44	15
Total	**296**	**100**

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In terms of educational background, the results show that most of the respondents were high school graduates 94 (31.76 percent). This means that most of the rice farmers in Misamis Oriental have graduated from high school. This is consistent with the PSA (2019) data that 37.2 percent of agricultural workers have attended high school. This further implies that education is already given emphasis to all walks of life. It is already realized that tailored educational programs and support systems are vital to enhancing the productivity and sustainability of agriculture in the Philippines. According to Dan et al. (2019) education becomes crucial to the rural labor force to become modern professional farmers who are knowledgeable, skilled, and well-versed in the latest agricultural management techniques and thus improve agricultural productivity and foster the development of modern agriculture.

Further, most participants' farming experience is evident from the figures. There were 115 (38.85 percent) farmers who experienced more than 10 years. This suggests a sizeable portion of farmers who have farming experience. Based on the survey results of the 115 farmers with farming experience of more than 10 years, it shows that 80.87% of them belong to the age bracket of 45 years old and above, and only 19.13% of them belong to the age range between 18-44 years old. This means that Misamis Oriental farmers are nearing to senior years. This is consistent with Palis's (2020) study showing that Filipino rice farmers are getting older with an average age of 53.

Specifically, other training programs undertaken show that the majority (85%) had not participated in any other training program of TESDA. This means that generally, rice farmers are not aware of the TESDA Rice Extension Service Program. This further implies that TESDA RESP is not fully intensified in the province of Misamis Oriental which is evident that there were only three (3) institutions registered with TESDA. According to the TESDA T2MIS database system UTPRAS Report for the compendium of registered programs, there are only 18 training programs registered in the Agriculture Sector of Misamis Oriental from the identified training institution which was mainly registered by Kinoguitan National Agricultural School, and only 1 training program for both school respondents. However, 15% of the student farmers have taken part in other TESDA training programs for various qualifications from the sectors of Construction, Transportation, and Agriculture.

Problem 2. What is the level of the TESDA RESP Scholarship Program support as to:
  2.1 Resource, and
  2.2 Training?

Table 2 reflects the TESDA RESP Scholarship Program support as to resource with an overall Mean of 4.53 with SD=0.38, which is described as All of the Time and interpreted as Very High. The results indicate a very high level of satisfaction and perceived adequacy regarding the support provided by the TESDA RESP Scholarship Program, specifically concerning resources for agricultural training. This implies that financial support as to training cost, and training allowance; the provision of training supplies, materials, and equipment; and training facilities provided to the student farmers during the conduct of training in the Production of High-Quality Inbred Rice, Seed Certification, and Mechanization are sufficiently supplied to facilitate and promote learning of students' farmers.

This conveys that training costs paid to the Farm Field School were appropriately used to benefit the student farmers. According to Red et al. (2021) in a study of the Effect of Farmer Field School on the knowledge, attitude, practices, and profitability of rice farmers showed that FFS farmers have a significantly higher level of knowledge and a greater extent of practice than non-FFS farmers in the Palay check System.

Indicator 1, I received the daily Training Support Fund of Php160.00 provided directly to me by TESDA in terms of its adequacy for supporting my participation in the program got the highest Mean of 4.83 with SD=0.45, which is described as All the Time and interpreted as Very High. This means that TESDA Misamis Oriental Provincial Office has amply paid the student farmers with the Training Support Fund allocated for them. This indicates that the amount allocated at Php160.00 per day for the entire seventeen (17) days of training is just enough to support them, especially for their transportation and meal allowance while attending the training program.

The high adequacy rating suggests that the financial support provided was well-received and played a crucial role in enabling consistent participation in the training program. This financial assistance likely reduced economic barriers, making the training program more accessible to student farmers and ensuring their consistent attendance and engagement. The support fund's adequacy underscores the importance of financial support in facilitating effective learning and participation.

By addressing the participants' financial needs, TESDA has maximized the training program's impact on enhancing agricultural competency and productivity. The high satisfaction level with the Training Support Fund reflects positively on TESDA's efforts and the administration by the Misamis Oriental Provincial Office, thereby enhancing their credibility within the farming community. Financial adequacy is vital for the sustainability of training programs as it encourages continued participation, advocacy, and future funding support.

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The alignment of the Training Support Fund with the program's goals is crucial for TESDA's mission to enhance agricultural skills and knowledge, contributing to the overall development of the agricultural sector. Supporting rice farmers with adequate resources for skills development is essential for boosting their productivity, ensuring food security, promoting sustainability, and fostering rural development. This aligns with findings by Dhillon and Moncur (2023), who emphasize the importance of resource support in enhancing agricultural productivity and fostering sustainable development.

The indicator 4, Having financial challenges constraints me in participating in the TESDA RESP Scholarship Program got the lowest Mean of 3.64 with SD=1.36, described as Most of the Time and interpreted as High. This result indicates that financial challenges frequently hinder participation in the scholarship program, implying that many individuals face significant financial constraints when considering involvement in the program.

According to TESDA Circular No. 053 series 2020, the guidelines for the payment of the Training Support Fund (TSF) specify that payments should be made in three tranches: 20% (Php544.00) after the completion of Session 1, 50% (Php1,360.00) at the end of Session 6, and 30% (Php816.00) at the end of Session 14, totaling Php2,720.00. Although student farmers affirm that they received the TSF allocated to them in tranches, there is a tendency for the funds to be diverted for other purposes instead of being fully utilized for transportation and meal allowances.

This interpretation underscores the need to address financial barriers to ensure broader access and participation in the scholarship program. While the TSF is designed to support participants' financial needs, the timing and method of disbursement may inadvertently lead to funds being used for non-training-related expenses. This highlights the importance of not only providing financial support but also ensuring effective financial governance and management among the beneficiaries.

Increasing the knowledge and skills of farmers through counseling and assistance in financial management can lead to significant improvements. According to Riwu et al. (2023), effective financial governance strengthens the economy, increases income, and reduces economic inequality. Implementing financial education and management training can help participants better allocate their TSF, ensuring that the funds are used appropriately to support their participation in the training program. While the TSF is essential in reducing financial barriers, additional measures such as financial management training are necessary to maximize its effectiveness. Addressing these financial challenges is crucial for enhancing the accessibility and impact of the TESDA RESP Scholarship Program, ensuring that more individuals can benefit from the training and improve their agricultural competence and productivity.

Table 2: Resource

Indicator	Mean	SD	Description	Interpretation
1. I received the daily Training Support Fund of Php160.00 provided directly to me by TESDA in terms of its adequacy for supporting my participation in the program.	4.83	0.45	All of the Time	Very High
2. I am satisfied are you with the amount of financial support provided by the TESDA RESP Scholarship Program for your agricultural training.	4.30	1.18	All of the Time	Very High
3. The daily Training Support Fund of Php160.00 sufficiently covers the costs associated with my participation in the program.	4.09	1.21	Most of the Time	High
4. Having financial challenges have constrained me from participating in the TESDA RESP Scholarship Program.	3.64	1.36	Most of the Time	High
5. The policy allowing multiple scholarship availments from TESDA one at a time and not simultaneously, is fair and reasonable.	4.11	1.16	Most of the Time	High
6. The availability of free skills training has positively influenced my decision to participate in the TESDA RESP Scholarship Program.	4.70	0.59	All of the Time	Very High
7. The training provided on the Production of High-Quality Inbred Rice Seed Certification, and Farm Mechanization is comprehensive and relevant to rice farmers.	4.76	0.52	All of the Time	Very High
8. The Farm Field School facility effectively serves as a model for showcasing applicable rice-based farming technologies and serves as a practical and hands-on learning environment, complementing classroom learning effectively.	4.75	0.48	All of the Time	Very High
9. The Farm Field School's management of skills training and institutional competency assessment ensures a high-quality learning experience.	4.69	0.53	All of the Time	Very High
10. Materials like tools, seeds, and fertilizer provided for the training on the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization are enough and are of good quality.	4.69	0.53	All of the Time	Very High

	Mean	SD	Description	Interpretation
11. The up-to-date training materials provided during the program have enhanced the relevance of the training content.	4.66	0.51	All of the Time	Very High
12. The learning field of 5,000 square used for the training is adequate for the use of five (5) rice varietal trials, the conduct of AESA, a hands-on area for other rice activities, and machine demonstrations area as a primary learning site which contributes significantly to the effectiveness of the training.	4.66	0.57	All of the Time	Very High
13. The variety of hand tools and machinery provided for training are effective in enhancing my skills in Farm Mechanization.	4.63	0.60	All of the Time	Very High
14. The provision of samples on a variety of high and low-quality inbreed rice and seeds has helped me in identifying the class and standards of high-quality inbreed rice seeds.	4.71	0.50	All of the Time	Very High
15. The facilities and infrastructure, including demo farms, classrooms, and workshop areas, contribute positively to my overall learning experience.	4.74	0.50	All of the Time	Very High
Overall	**4.53**	**0.38**	**All of the Time**	**Very High**

Note: 4.21-5.00-All of the Time   3.41-4.20- Most of the Time   2.61-3.40-Sometimes
        1.81-2.60-Rarely   1.00-1.80-Never

Table 3 reflects the TESDA RESP Scholarship Program support to training with an overall Mean of 4.68 with SD=0.38, which is described as All of the Time and interpreted as Very High. The results indicate a very high level of satisfaction and perceived adequacy regarding the support provided by the TESDA RESP Scholarship Program, specifically concerning training support for successfully conducting agricultural training on the Production of High-Quality Inbreed Rice, Seed Certification, and Farm Mechanization. This implies that training support which includes curriculum design, training methodology, and trainer's competence pattern to adult learning was adequate and appropriate enough to convey and transfer learning to student farmers.

Knowles (1980) emphasized the importance of andragogy, an adult learning theory that shifts the focus from pedagogy to learner-based practices. This approach is particularly effective in engaging adult learners by fostering critical thinking and skill development through content-focused lessons in developing skill sets vital to the various disciplines (Livingston & Cummings-Clay, 2023).

Table 3: Training.

Indicators	Mean	SD	Description	Interpretation
1. The curriculum design for the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization aligns well with my learning needs.	4.77	0.44	All of the Time	Very High
2. I am satisfied with the overall facilitation and conduct of the fourteen (14) sessions in the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization training.	4.71	0.48	All of the Time	Very High
3. The fourteen (14) sessions that the curriculum effectively covers essential topics related to rice production, seed certification, and farm mechanization.	4.68	0.51	All of the Time	Very High
4. Meeting once a day each week for the whole cropping duration to complete the 14 sessions is just enough for me to be capacitated and upskilled in the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization.	4.62	0.60	All of the Time	Very High
5. Using the local conditions of the Farm Field School as a basis for the curriculum and materials effectively contributes to my learning on the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization.	4.67	0.51	All of the Time	Very High
6. I find the teaching methodologies employed during the training sessions engaging and conducive to learning about rice production, seed certification, and farm mechanization.	4.69	0.54	All of the Time	Very High
7. The learning process, based on principles such as field-based learning and learning through experience, enhances my understanding of rice farming techniques.	4.69	0.51	All of the Time	Very High
8. I receive adequate support and guidance from the trainers during your training sessions on rice production, seed certification, and farm mechanization.	4.67	0.52	All of the Time	Very High
9. The training duration for the entire cropping season is effective and has helped me acquire a comprehensive and firm understanding of relevant rice production concepts for each growth stage as well as the factors that influence pest control decision-making in all stages of the plant growth.	4.64	0.61	All of the Time	Very High

10.	I am satisfied with the training program's focus on factors influencing pest control decision-making throughout the plant's growth stages.	4.71	0.51	All of the Time	Very High
11.	I am satisfied with the training program's focus on the application of farm machines related to rice production throughout the plant's growth stages.	4.61	0.68	All of the Time	Very High
12.	I see that the trainers possess sufficient knowledge and expertise in rice production, seed certification, and farm mechanization and have effectively taught me.	4.75	0.45	All of the Time	Very High
13.	I am provided with opportunities for hands-on experience and experiential learning during the training sessions on farm mechanization.	4.63	0.58	All of the Time	Very High
14.	The training program's focus on practical aspects such as Farm Planning, Budgeting, Recordkeeping, and Basic Financial Literacy significantly contributes to my skills and knowledge.	4.66	0.52	All of the Time	Very High
15.	Overall, I am satisfied with the curriculum, methodologies, and trainers provided for the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization.	4.74	0.47	All of the Time	Very High
	Overall	**4.68**	**0.38**	**All of the Time**	**Very High**

Note: 4.21-5.00-All of the Time   3.41-4.20- Most of the Time   2.61-3.40- Sometimes
1.81-2.60-Rarely   1.00-1.80-Never

Indicator 1, the curriculum design for the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization aligns well with my learning needs and got the highest Mean of 4.77 with SD=0.44, which is described as All the Time and interpreted as Very High suggesting a high level of consensus among respondent.

This implies that the curriculum design is perceived as highly effective in addressing the specific learning requirements of the participants, indicating a very high level of alignment between the curriculum and their training needs in rice farming and is highly effective in addressing the specific learning requirements of the participants.

The alignment between the curriculum and the training needs of the student farmers is particularly significant for several reasons: 1) relevance to practical needs that directly addresses the critical areas of competence required for modern rice farming and applicable to the farmers' daily activities; 2) the curriculum incorporates principles of adult learning, such as practical application, relevance to real-life experiences, and self-directed learning; 3) training methodologies and content are well-designed to facilitate effective learning; and 4) boost the motivation and engagement of the participants and are more likely to be actively involved and committed to the learning process.

On the other hand, indicator 4, Meeting once a day each week for the whole cropping duration to complete the 14 sessions is just enough for me to be capacitated and upskilled in the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization got the lowest Mean of 4.62 with SD=0.60, described as All of the Time and interpreted as High. This suggests that while learners generally agree that meeting once a day each week throughout the entire cropping duration to complete the 14 sessions is adequate for their capacity building and upskilling in the Production of High-Quality Inbred Rice, Seed Certification, and Farm Mechanization, there are some reservations.

The slight deviation in responses suggests that some learners may benefit from more frequent or intensive training sessions to enhance capacity-building and upskilling. While current sessions meet most learners' needs, exploring alternative scheduling or additional learning activities could address diverse preferences. This underscores the need for flexibility in training program design to ensure optimal outcomes for all participants. Agricultural training effectiveness was significantly influenced by intrinsic motivation and perceived content validity, with the latter mediating the relationship between motivation and training transfer. Enhancing knowledge transfer among smallholder farmers can be achieved by focusing on pre-training efforts, such as selecting highly motivated participants and ensuring relevant and valid training content (Twase et al., 2021).

Table 4: Support.

Support	Mean	SD	Description	Interpretation
Resource	4.53	0.38	All of the Time	Very High
Training	4.68	0.38	All of the Time	Very High
Mean	**4.60**	**0.38**	**All of the Time**	**Very High**

Note: 4.21-5.00-All of the Time   3.41-4.20- Most of the Time   2.61-3.40- Sometimes
1.81-2.60-Rarely   1.00-1.80-Never

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The study results indicate that participants perceive very high levels of support from the TESDA RESP Scholarship Program, both in terms of resources and training. The mean scores for both types of support are notably high, with a mean of 4.53 for resource support and 4.68 for training support, and low standard deviations of 0.38 for both, indicating a high level of consensus among respondents.

This suggests that participants perceived that the program consistently provides ample resources and effective training opportunities to support their educational endeavors. This level of perceived support is crucial for ensuring the success and satisfaction of program participants. Insights from these results underscore the importance of robust support systems in technical educational initiatives, highlighting the positive impact that well-designed scholarship programs can have on student farmers' experiences and outcomes. Additionally, these findings may inform future program development efforts, emphasizing the significance of prioritizing resources and training opportunities to maximize the effectiveness and value of technical and vocational education and training interventions.

Moreover, detailed instructional techniques on mapping out the essential components of the occupations and identifying the knowledge, skills, behavior, and attitudes provide a clear understanding of the competencies required for an individual learner. These techniques offer guidance on how to effectively deliver training programs, ensuring that learners acquire the necessary skills and knowledge. By providing a comprehensive framework rooted in the realities of the agricultural sector that supports the development of skilled and knowledgeable farmers, ultimately enhancing the sustainability and resilience of the agricultural industry (Clements, 2022).

Problem 3. What is the level of the respondents' Agricultural Competence?

On the next page, Table 5 reflects the level of respondents' agricultural competence with an overall Mean of 4.68 with SD=0.33, which is described as Strongly Agree and interpreted as High Level of Competence. The result indicates a strong level of agreement among respondents, with responses predominantly falling into the "Strongly Agree" category. This implies that participants feel confident and proficient in their agricultural knowledge and skills, reflecting positively on the effectiveness of their training and educational experiences. This highlights the success of the educational interventions aimed at enhancing agricultural competence among respondents.

Additionally, it underscores the importance of continued support and investment in technical vocational education and training programs to sustain and further develop participants' competencies in the agricultural sector. Competence-specific on-the-job training should be structured to meet the short-term demands, building social capital and investing in technical vocational education and training seem more important (Aregaw et al., 2023).

Table 5: Level of Respondents' Agricultural Competence.

Indicators	Mean	SD	Description	Interpretation
1. The sessions on the Philippine Rice Industry provided me with valuable insights into the challenges and opportunities faced by rice farmers.	4.77	0.45	Strongly Agree	High Level of Competence
2. Understanding the Rice Competitiveness Enhancement Fund (RCEF) and its implications has increased my awareness of government support for rice farmers.	4.58	0.54	Strongly Agree	High Level of Competence
3. The sessions on transformational leadership have equipped me with the skills necessary to lead and inspire positive change in the agricultural sector.	4.55	0.57	Strongly Agree	High Level of Competence
4. The sessions on rice morphology and growth stages effectively conveyed important information for crop management.	4.65	0.52	Strongly Agree	High Level of Competence
5. Farm planning, budgeting, and recordkeeping sessions helped enhance my ability to manage agricultural operations efficiently.	4.62	0.51	Strongly Agree	High Level of Competence
6. The practical sessions provided me with valuable knowledge on critical aspects such as land preparation, nutrient management, and pest management.	4.72	0.53	Strongly Agree	High Level of Competence
7. Understanding Integrated Pest Management (IPM) concepts, Indigenous Practices (IPs), and Natural Enemies (NEs) has improved my approach to pest control.	4.69	0.50	Strongly Agree	High Level of Competence
8. The session on conducting Agro-Ecological Zone Analysis (AESA) enhanced my ability to assess and plan agricultural practices according to local conditions.	4.72	0.47	Strongly Agree	High Level of Competence

9.	The hands-on activities during AESA sessions provided me with practical experience in identifying and addressing agricultural challenges.	4.75	0.46	Strongly Agree	High Level of Competence
10.	Learning about basic financial literacy and management has improved my understanding of financial concepts related to farming.	4.64	0.52	Strongly Agree	High Level of Competence
11.	The session on seed certification process and seed testing have increased my confidence in selecting high-quality seeds for planting.	4.67	0.49	Strongly Agree	High Level of Competence
12.	I have honed my skills in operating agricultural machinery and equipment to a high level.	4.58	0.59	Strongly Agree	High Level of Competence
13.	Field day activities provided me with a valuable opportunity to apply theoretical knowledge in real-life agricultural settings.	4.71	0.46	Strongly Agree	High Level of Competence
14.	The curriculum effectively prepared me with the necessary agricultural competencies to succeed in farming practices.	4.73	0.46	Strongly Agree	High Level of Competence
15.	Participation in this program has increased my confidence in my ability to contribute positively to the agricultural sector.	4.79	0.41	Strongly Agree	High Level of Competence
	Overall	**4.68**	**0.33**	**Strongly Agree**	**High Level of Competence**

Indicator 15 on Participation in this program has increased my confidence in my ability to contribute positively to the agricultural sector got the highest Mean of 4.79 with SD=0.33, which is described as Strongly Agree and interpreted as Very High Level of Confidence. The result of this study suggests that participation in the program significantly boosts participants' confidence in their ability to make positive contributions to the agricultural sector. This implies a very high level of confidence among participants regarding their potential impact in the agricultural field as a result of their engagement in the program. Insights from this result underscore the program's effectiveness not only in imparting knowledge and skills but also in empowering participants and fostering a sense of efficacy and agency within the agricultural community.

The study by Rüber et al. (2018) revealed that education is associated with a wide range of positive outcomes such as higher wages and employability, as well as increased well-being or volunteering, which are notable returns on engagement in adult learning. Individuals' civic participation contributes to social cohesion and functioning citizenship at a societal level, making it a factor of high political and societal relevance.

In the same table, indicator 3 The sessions on transformational leadership have equipped me with the skills necessary to lead and inspire positive change in the agricultural sector, got the lowest Mean of 4.55 with SD=0.57. This score, described as All of the Time and interpreted as High. This suggests that participants strongly agree that the transformational leadership sessions have effectively provided them with essential leadership skills. Despite being the lowest mean among the indicators, the high rating indicates overall positive feedback. Participants feel confident in their ability to apply these leadership skills to drive positive changes in the agricultural sector, highlighting the sessions' effectiveness in achieving their intended outcomes.

Furthermore, it also implies that while participants may perceive slightly less effectiveness in this area compared to others, they still recognize the value and importance of the leadership training provided. This highlights the significance of leadership development in fostering positive change within the agricultural sector and suggests opportunities for further refinement and enhancement of leadership training programs to better meet participants' needs and expectations. A study suggests that transformational leadership within the farmer groups influences the success rate of the agribusiness development program (Elizabeth et al., 2023).

El-Hage and Sidani (2023) study found that the transformational leadership dimensions of intellectual stimulation and inspirational motivation are crucial during times of change. This suggests that intellectual stimulation and inspirational motivation are essential for encouraging innovation and motivation to embrace and implement changes. Leaders who challenge existing processes and inspire a shared vision can drive significant progress in institutionalizing change. Recognizing individual contributions helps garner support and commitment, fostering ownership and accountability crucial for successful change implementation.

TESDA Rice Extension Services Program and Agricultural Competence among Farm Field Student Farmers

Problem 4. Is there a significant relationship between the TESDA Respondent Program support and respondents' Agricultural Competence?

Table 6: *Support and Agricultural Competence.*

Support	r	P	Interpretation
Resource	0.69	<.001	Significant
Training	0.79	<.001	Significant

*Note: r= Pearson r correlation; P = probability value; * = Significant at 0 .05 level*

Table 6 data shows that the TESDA RESP Program supports the respondents as to the Resource component aspect to enhance student farmers' Agricultural Competence, there is a Pearson correlation coefficient of 0.69 and a probability value (p) of less than .001, indicating a highly significant positive relationship. This means that there is a strong positive correlation between TESDA Rice Extension Service Program support in terms of Resources and Agricultural Competence among the respondents. Hence, the null hypothesis is rejected. This implies that the free training; financial assistance; access to farming materials like tools and equipment; and appropriate training infrastructure support provided by the scholarship program have a substantial influence on enhancing respondents' agricultural competence. Farmers' knowledge is influenced by a range of factors which include training and access to formal and informal knowledge sources (Zossou et al., 2019).

In the same table, data also shows that the RESP Program supports in terms of the Training component enhanced student farmers' Agricultural Competence, there is a Pearson correlation coefficient of 0.79 and a probability value (p) of less than .001, indicating a highly significant positive relationship. This means that there is a strong positive correlation between TESDA Rice Extension Service Program support in terms of Training and Agricultural Competence among the respondents.

These findings underscore the effectiveness of the curriculum on the Production of High-Quality Inbred Rice and Seed Certification, and Farm Mechanization; the training methodology; and trainers or the extension service providers influence student farmers' agricultural competence and influence development and knowledge acquisition among agricultural practitioners. Moreover, a study emphasized the need for continued investment in support programs to further strengthen the agricultural workforce and foster sustainable development in the agricultural sector (Biswas et al., 2021).

Problem 5. Is there a significant difference between the TESDA Respondent Program support and respondents' Agricultural Competence?

On the next page Table 7 suggests that when grouped according to their demographic profiles, there is no significant difference between TESDA RESP Scholarship Program support and respondents' agricultural competence across different demographic variables. Regardless of age, educational background, years of farming experience, or participation in other training programs, the interaction between TESDA RESP support and agricultural competence did not yield significant differences. This implies that the impact of the TESDA RESP Scholarship Program support on agricultural competence does not vary significantly based on demographic characteristics such as age, educational background, farming experience, or participation in other training programs. The results indicate that the effectiveness of the program in enhancing agricultural competence remains consistent across diverse demographic profiles. However, it also suggests the need for further exploration to understand potential factors that may influence the relationship between program support and competence among specific demographic groups.

Specifically, age, F-value of 1.95 with a p-value of 0.102 indicates that there is no statistically significant difference between age and the interaction between TESDA RESP Program support and agricultural competence. This suggests that the impact of the program support on agricultural competence does not vary significantly across different age groups. While age may not directly influence the effectiveness of the program, it's essential to recognize that individuals of all ages can benefit from support and training programs in agricultural competence.

Table 7: TESDA Respondent Program Support and Agricultural Competence when Grouped According to Their Profile.

TESDA Respondent Program support * Agricultural Competence	F	P	Interpretation
Age	1.95	0.102	Not Significant
Educational background	0.53	0.755	Not Significant
Years of farming experience	2.73	0.055	Not Significant
Other training programs	1.84	0.176	Not Significant

*Note: t/F= t-test/ANOVA; P = probability value; * = Significant at 0 .05 level*

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The view of age-related motivational maintenance assumes that motivation to participate in developmental activities remains constant as age progresses. Consequently, motivation to learn and the productive use of training do not decline but endure the course. A study shows that motivation to learn does not vary in age group and uniformly distributed means of the motivation to learn items ranged from 3.8 to 4.2 out of 5.0 (Yamashita et al., 2022).

Educational background, F-value of 0.53 with a p-value of 0.755 suggests that there is no significant difference between educational background and the interaction between program support and agricultural competence. This indicates that the impact of the program support remains consistent regardless of participants' educational levels. Educational background does not seem to be a determining factor in the effectiveness of the program. However, it underscores the importance of providing accessible and inclusive training opportunities that cater to individuals with diverse educational backgrounds.

Moreover, the study conducted by Yamashita et al., (2022) highlights the use of education level as a proxy for socioeconomic status, which has been consistently linked to various aspects of cognitive development, motivation, and student engagement. The meta-analysis cited indicates a significant effect of peer socioeconomic status on student achievement. However, the study notes a lack of comparative research on how education level specifically affects age-related differences in motivation and transfer of learning. As such, the study does not formulate hypotheses about whether higher, lower, or middle levels of education would lead to higher estimates of population characteristics.

Years of farming experience, F-value of 2.73 with a p-value of 0.055 indicates that there is no significant difference between years of farming experience and the interaction between program support and agricultural competence. However, the p-value is close to the conventional threshold of significance (0.05), suggesting a borderline result. While the difference is not statistically significant at the conventional threshold, the borderline p-value may warrant further investigation to explore potential nuances in the impact of program support on agricultural competence among individuals with varying years of farming experience.

Participation in other training programs F-value of 1.84 with a p-value of 0.176 suggests that there is no significant difference between participation in other training programs and the interaction between program support and agricultural competence. Participation in other training programs does not appear to significantly influence the effectiveness of the TESDA RESP Program in enhancing agricultural competence. However, it highlights the need for coordination and integration of various training initiatives to ensure comprehensive skill development among participants.

TESDA's Rice Extension Service Program (RESP) utilizes a standardized, competency-based, and inclusive teaching methodology, which likely accounts for the lack of significant differences in agricultural competence across various demographic variables. By providing uniform, practical, and hands-on training, TESDA ensures that all participants, regardless of age, education, farming experience, or previous training, achieve similar competence levels. The continuous assessment and feedback mechanisms, coupled with an emphasis on lifelong learning, further contribute to uniformly high outcomes in agricultural skills among RESP participants. This approach effectively minimizes the impact of individual demographic factors on the overall competence gained through the program.

Overall, while none of the demographic variables show a significant influence on the relationship between program support and agricultural competence, these findings underscore the importance of inclusive and consistent support programs that cater to individuals across diverse demographic profiles and backgrounds.

IV. CONCLUSIONS

On the basis of the aforementioned findings, the following conclusions can be made:

1. The profile of farmer respondents in Misamis Oriental highlights a strong interest in agricultural training among older demographics, driven by the need to sustain family livelihoods reliant on farming. Despite a majority being high school graduates and possessing over 10 years of farming experience, there is a noticeable trend towards a maturing farming population, reflecting broader demographic shifts among Filipino rice farmers. Low participation in other TESDA training programs suggests potential awareness or accessibility issues with such initiatives.

2. The TESDA RESP Scholarship Program offered sufficient resources, notably the training support fund, but financial limitations remain a barrier to student farmers' participation. Although the curriculum for the Production of High-Quality Inbred Rice and Seed Certification meets their needs, its brief duration—17 days compared to the rice plant's 100-140-day life cycle—is seen as a constraint by student farmers.

3. The TESDA RESP Scholarship Program positively impacts participants' agricultural competence and developed technical expertise in rice production but have less confidence in the transformational leadership necessary to lead and inspire positive change in other farmers in their respective communities.

4. It reveals a substantial influence of TESDA RESP Program support, both in terms of resources and training, on enhancing respondents' agricultural competence. These findings underscore the importance of robust support systems in facilitating skill development and knowledge acquisition among agricultural practitioners.

5. Adult learning principles improve the TESDA RESP Scholarship Program's efficacy in enhancing agricultural competence, catering to diverse needs and preferences. Through self-directed learning, practical application, and real-life relevance, the program consistently benefits individuals of varying ages, educational backgrounds, farming experiences, and prior training.

V. RECOMMENDATIONS

Based on the findings and conclusions generated from this study, the researcher has formulated the following recommendations:

1. Launching may focus on awareness campaigns to educate farmers, diversifying training programs to meet diverse needs, and prioritizing the inclusion of younger generations to ensure the sector's longevity and vibrancy.

2. Revise the omnibus guidelines for training support fund payment to address financial challenges encountered by student farmers in the TESDA RESP Scholarship Program. Additionally, modify the curriculum for the Production of High-Quality Inbred Rice and Seed Certification to extend training duration, covering the entire life cycle of the rice plant, thereby enhancing program accessibility and effectiveness for student farmers in agriculture.

3. Update curriculum content to include soft skills for enhancing confidence and leadership among agricultural workers through interactive learning methods, provide ongoing mentorship, and establish feedback mechanisms for monitoring and improving leadership training initiatives.

4. Enhance TESDA RESP Program support by improving access to resources and expanding training initiatives. Implement continuous evaluation and feedback mechanisms to monitor effectiveness, strengthen participant skills, and foster sustainability and development in the agricultural sector.

5. Sustain inclusive support programs within the TESDA RESP Scholarship Program, prioritizing accessibility and effectiveness for all participants, regardless of demographic variations. Conduct additional research to investigate how program support impacts agricultural competence within specific groups, guiding targeted enhancements.

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