

Agri-Fishery Programs of Technical Education and Skills Development Authority (TESDA) Schools and Training Centers: Basis for A Sustainability Plan

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ABSTRACT

The study was conducted to evaluate the Agri-fishery Programs of TESDA Schools and Training Centers to be the basis for sustainability plan.. It employed a mixed-method approach, combining quantitative surveys and qualitative interviews to gather a holistic perspective of teaching methodologies, adequacy of resources and overall impact of the Agriculture Program. Insights derived from this study are expected to inform policymakers, educational administrators, and industry stakeholders to enhance the quality and relevance of agricultural education, ultimately contributing to the development of skilled and adaptive agricultural workforce. Results of the study showed that there is a very highly manifestation of the competencies acquired that are useful to respondents' present job. It took them 1 to 3 months to land a decent job while others are on their own farm. The study revealed that Agriculture programs in TESDA Schools and Training Centers are still few, but it is in accordance with their specialization and is very effective according to the set indicators. Learners need to have a greater perspective on the importance of agriculture for food security and self-sustenance. Moreover, perception of the graduates, training institutions and administrators has no significant difference on the perceptions on the satisfaction of Agri-fishery programs. On way forward is the sustainability plan for the continuous strengthening of Agri-fishery programs for TVET through massive career orientation, intensifying TVET training for agriculture and upgrading of the program.

Keywords: *Agri-fishery programs, TESDA Schools, TESDA Training Centers, technical courses, qualification, competencies, trainer, trainees, graduates, effectiveness, employment*

INTRODUCTION

Agriculture remains a major engine of growth among Southeast Asian countries, particularly for poverty reduction and food security (Gregorio, et al. ,2020)

Agriculture education is just one of dozens of "undersubscribed" courses, or those college programs that have low enrolment and graduation rates, as opposed to "oversubscribed" courses such as nursing, business administration, and teacher education (CHED,2026). Under TESDA Director General Isidro Lapeña's leadership, TESDA listed agriculture as among its priority sectors. Agriculture – Fishery programs became the priority sector and were given largest percentage for scholarship programs through *TESDA Memorandum No. 013 s. 2020*. This encouraged other TESDA Schools to register programs under Agriculture sector to avail scholarship grants thus increasing number of enrollees and graduates for about three years ago until the present time. It was realized that we need to enhance agri-fishery training to produce TVET graduates who are equipped with positive values, innovative and green skills that are responsive to the needs of Agri-fishery. This mark changes from the settings of the TVET schools and training centers that is more on Tourism and hard trades area before. A door opens to the agriculture advocates and industry to engage in TVET Agriculture Training with their existing facilities leading to an additional accredited TESDA Schools to offer courses in the said sector. Likewise, training centers who are specialized in hard trades also indulge programs under Agri-fishery sector. With the fast transition of TVET courses offered, the readiness of the facilities, curriculum and expertise may affect the effectivity of the programs. Thus, the study was conceptualized and conducted.

Statement of the Problem

The study aimed to assess the effectiveness of the Agri-Fishery programs offered by TESDA schools and training centers in Pangasinan.

Specifically, it sought to answer the following questions:

1. What is the profile of the graduates in terms of the following:
 - A. Demographic Profile
 - a. Age
 - b. Sex
 - c. Civil Status
 - d. Highest Educational Attainment
 - e. Agri-fishery Course/Assessment Taken
 - f. Year Graduated
 - B. Employment Profile
 - a. Present Employment Status
 - b. Status of Employment
 - c. Occupational Classification
 - d. Employer's Line of Business
 - e. Place of Work

- f. Position
 - g. Period of Employment searching
2. What is the degree of manifestation of the competencies acquired in the training institutions that are useful in the present job of the graduates?
 3. To what extent do the graduates, training institutions and other stakeholders perceived the effectiveness of the agri-fishery in terms of the following:
 - a. Curriculum Implementation
 - b. Adequacy and Availability of Tools and Equipment
 - c. Training Materials
 - d. Training Strategies
 - e. Training Venue/facilities
 - f. Time Period
 4. Is there a significant relationship between the graduates' employment profile and the extent of competencies acquired in the training institutions that are useful in their present job?
 5. Is there a significant difference in the perceptions of graduates? and administrators on the effectiveness of Agri-fishery programs?
 6. What sustainability plan can be proposed to maintain and enhance the implementation of the Agri-Fishery programs of TESDA schools and training centers?

Scope and Delimitation

This study aimed to determine the effectiveness of the Agri-fishery Programs, offered by TESDA schools and training centers in Pangasinan.

This study was conducted within the TESDA Schools and Training Centers that offer qualifications in the Agriculture, Fishery and Forestry sector. There were thirty-two (32) TESDA schools and two (2) Training Centers, which registered a few of the qualifications under this sector. This study targeted graduates, technical experts, and individuals involved in related industries as respondents. The respondents were selected from the programs offered between 2018-2022.

Review of Related Literature

According to the Law on Technical Education and Skills Development, the Philippine government established the Technical Education and Skills Development Authority (TESDA) in 1994, as a special government agency for supervising and managing TVET in the Philippines. The TESDA plays an important role in establishing standards and systems, providing policy guidance, preparing development plans, and regulating training organizations for TVET in the Philippines. Besides, the

DOI:<https://doi.org/10.66206/eduheart.2026.275>

TESDA also cooperates with the Philippine government, enterprises, and training organizations to provide the society with industrial information and support young people's employment and entrepreneurship.

One of the mandates of TESDA is to develop competency standards for targets of education, describing work by way of competency units. Competency units may be integrated into qualifications, corresponding to relevant occupations and key jobs in the society, as well as the relevant grades in the Philippine TVET Qualification Framework. The national training regulations (including competency standards, training standards, and assessment process) issued by the TESDA are the basis for competency assessment, course setup and registration and certification of TVET programs.

Additionally, TESDA assesses and certifies applicants' competency mainly through the Philippine TVET Competency Assessment and Certification System, to see if students have met relevant competency requirements. The TESDA has set up a special inquiry system, providing the certification information of people in various vocational fields nationwide. The TESDA has set up an assessment center and appraiser to provide competency assessment services to people applying for certification (Qiuchen, 2019)

With the prioritization of the Agriculture, Fishery and Forestry Sector in the scholarship grants, most of the TESDA schools Public and Private registered courses under the said sector. Some agricultural farms turned into Training Institutions, Training Centers specializing in hard trades and schools specializing in tourism managed to include agriculture qualifications. Guided by the Training Regulations (TR) and Unified Training Program Registration System (UTPRAS), any individual or group of individuals can register to offer TESDA Courses provided they have met the requirements. The Technical Education and Skills Development Authority (TESDA) is encouraging more Filipino youth to be engaged in the agriculture sector, particularly in availing of its agriculture-related training courses, especially on modern rice farming.

In 2011, TVET Situationer Report of TESDA stated that there are 26 TESDA Agri-Fishery Schools all over the country. Agri-Fishery Schools' budget, when compared with TESDA, represents **10.4 percent** of the entire **TESDA Budget Php 2.8B**. However, if compared with the total budget of all TTIs, these 26 agri-fishery schools get **40.8 percent**. There are no private providers in the agri-fishery TVET. Agriculture has become less attractive to young Filipinos and to entrepreneurs. There is a shortage of farm managers with adequate entrepreneurial skills. Few college students major in agribusiness. Yet education remains a great enabler for increased agribusiness activity. It further explained that there is mismanagement of agricultural cooperatives in the Philippines. Farmers have no formal entrepreneurial and managerial training. Fund management is usually a serious problem; senior managers in cooperatives are often paid unjustified high salaries (Labor Market Intelligence Report-Agriculture & Fishery Industry, TESDA, 2011)

About half of all Filipinos live in rural—farming or fishing—areas and 70 percent of the poor families in our country are rural. Data from the Philippine Statistics Authority (PSA) show that the poverty incidence among fishermen is 39.2 percent, and among farmers, 38.3 percent. The average income of Filipino farmers, whose average age is 57 years, is only P2, 300.00 a month, working on his 1.5-hectare farm. The younger generation, who saw their parents, grow old and poor in farming do not

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see agriculture as a lucrative career. Farming in the Philippines cannot support a family. There is no assurance that there will be "successor —farmers to take over the task of producing food for the growing population. Providing access to TVET thru the Agri-Fishery farm schools is one of the strategies in achieving the long-term goal of rural development. This is also one of TESDA's responses in President Rodrigo R. Duterte's policy pronouncement that "It is my moral obligation to provide available and affordable food for my people" (TESDA Circular #56 s.2016)

As of 2019, from the TESDA Pangasinan compendium the province has thirty-four (34) training institutions offering qualifications under the said priority sector from about less than ten (10) before the Pandemic.

The transition of TVET prioritization on the sector of scholarship distribution, more private schools were accredited to Agriculture sector commonly on Organic Agriculture Production and Production of High-Quality Inbred Rice and Seed Certification and Farm Mechanization programs while one for each of the other identified qualifications. On the other hand, existing schools were compelled to offer such programs redesigning their facilities suited to the needs of the agriculture programs. Likewise, trainers of technical experts retooled themselves from the competencies of Agriculture through trainings and workshop to qualify and be accredited trainer to the said sector. Thus, this study is to determine the effectiveness of the programs.

Yet, there are compelling reasons to believe that now more than ever, countries in the Global South need to consider implementing formal initiatives for agricultural vocational training. Perhaps the most compelling reason is that gradually the social mechanisms for the inter-generational transfer of agricultural skills are breaking down. More children in countries from the Global South are attending primary and secondary education, which means that rural children are spending less time in the fields with their elders to acquire core agricultural skills. Moreover, in most countries with emerging and developing economies, youth may be disinterested in learning the traditional ways of farming from their parents – it does not align with their aspirations for more modern lifestyles (Brown, T., & Majumdar, S. 2020).

The approved 2020 Regional Sectoral Target for Scholarship allocations are: Agriculture 32%, General Infrastructure 32%, Health and Wellness 6%, ICT 5% and 25% for the remaining other sectors (TESDA Memorandum # 167 s.2020)

To provide quality TVET, the identification of the skills requirements that are relevant to the industries is critical in the development of the TVET programs. In identifying skill priorities, many factors must be considered. A very important factor that must be ascertained is the economic context. Skill priorities must be founded on a good understanding of how different job skills are formed and acquired in different skills markets in different areas (TESDA Circular 001 s. 2021).

The study further related that a range of challenges exists: there is an unsettled issue of devolution of its direct training function; resource constraints impact capital outlay, reducing its ability to provide up-to-date facilities, as well as trained staff; shortages of technology competency assessors and lengthy processes for developing standards and assessment tools undermine the ability to provide up-to-date services; and insufficient industry engagement hinders the ability to respond to changing

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private sector demand for skills (Technical and Vocational Education and Training in the Philippines in the Age of Industry 4.0, 2021)

The agriculture sector is one of the top priorities of the new Marcos administration and that it has trained its sights on boosting local production of farm products and limiting the importation of food. In the first half of this year, a total of 25,494 rice farmers have already enrolled in various TESDA courses under RESP. Most of them are still undergoing training in their respective courses. TESDA trains rice farmers in line with the implementation of Republic Act (RA) 11203, or the Rice Liberalization Act. The implementing guidelines were issued in September 2019 on RESP activities to be carried out by the agency through its regional and provincial offices. The agency had directed all its field offices to establish FFS in their respective TESDA institutions, particularly those located in 57 provinces that are recipients of Rice Competitive Enhancement Fund created under RA 11203 (Ciriaco, C.M. 2022).

All Regional and Provincial Offices shall continue to proactively identify the skills that are currently in demand through the Area-Based Demand-Driven TVET process. All programs identified in the Regional and Provincial Skills Priorities Report shall be the basis in the development of a purposive Regional and Provincial Sectoral Target and Scholarship Allocation Plan. This is to support the following priority sectors identified in the 8-point Socio-Economic Agenda of the National Government, including the supply chain, value chain, and emerging industries in the area: Agriculture, Construction, Health, Education, Tourism, Manufacturing, Transportation and Logistics, IT- BPM, Creative Industries and Energy (TESDA Circular # 009-A s.2023)

Theoretical Framework

The VET (Vocational Education and Training) framework refers to the system and structure designed to provide individuals with the skills, knowledge, and competencies necessary for specific trades, professions, or occupations. It encompasses a wide range of educational and training activities aimed at preparing people for the workforce, enhancing their career prospects, and contributing to economic development. The VET framework equips learners with necessary skills to improve their job prospects, facilitate their personal growth, and promote civic engagement. Vocational Education and Training enhance business performance, competitiveness, research, and innovation. In this study, TESDA schools and training centers are important sources of vocational education and training in agricultural and fishery programs. This framework assists in comprehending the organization, implementation, and assessment of these programs to fulfil the requirements of both learners and the industry

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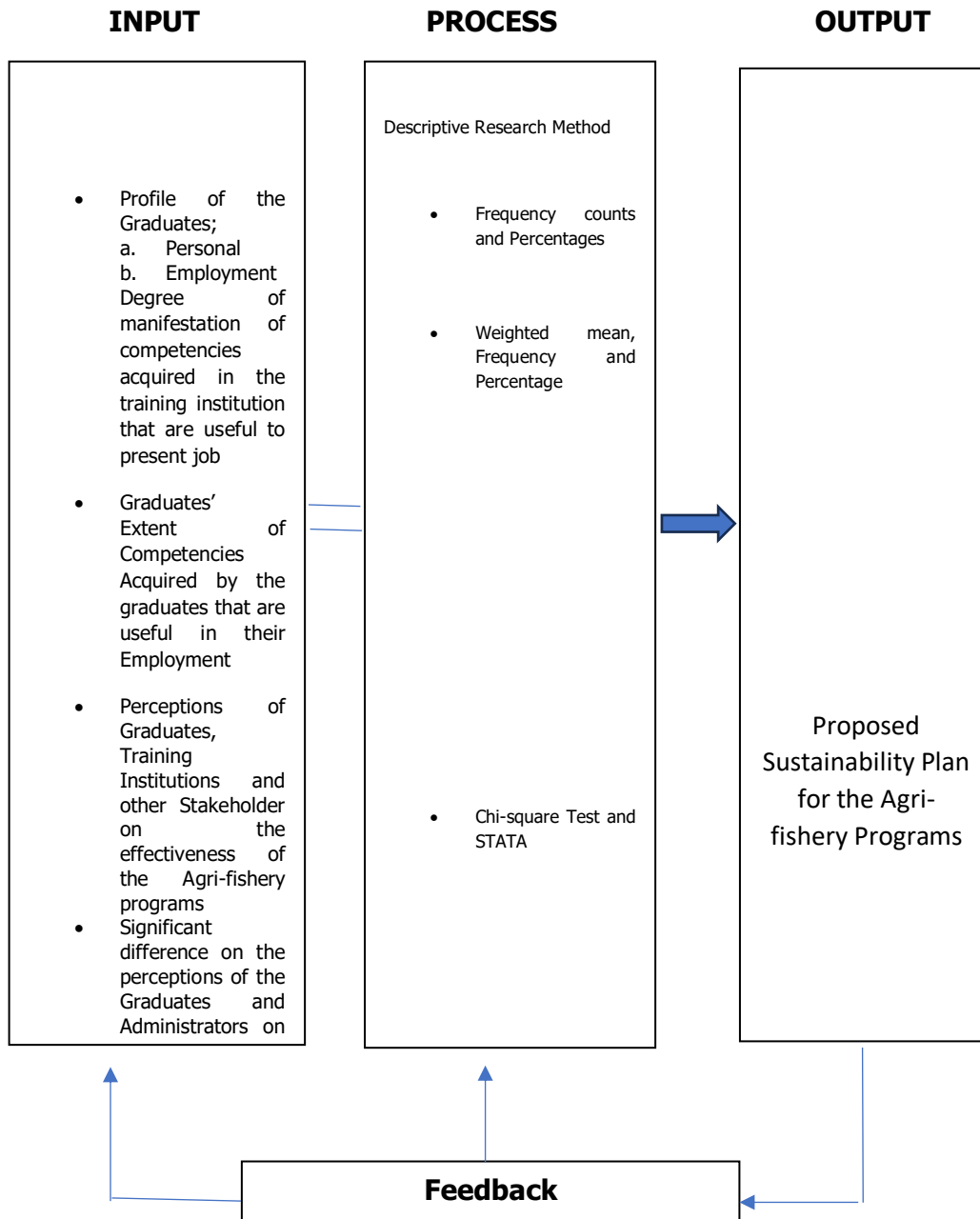
Conceptual Framework

This study aimed to determine the agriculture programs in Technical vocational education. It intended to gauge the challenges that agriculture educational system face in diversifying curriculum and operating farm sites and uses these challenges in crafting strategies and policies for relevant stakeholders. The profile, skills competencies and competency standard requirements became the basic parts of the questionnaire with the descriptive tools of survey. This covered the contents of the survey questionnaire which was collected through actual and online data gathering. Following the data collection protocols, the completeness and consistency of responses on the completed questionnaires were checked. Using mixed statistical method, frequency counts, and percentage tools, collected data were coded and interpreted.

Competencies to measure the extent of effectiveness were derived from the Training Regulations of each qualification downloaded from the TESDA website.

Categorical data using chi-square using STATA application, gave interpretation to determine the manifestations and significant relationship of the competencies acquired by the respondents that is useful in the job and the perceived effectiveness of the Agri-fishery programs.

Data were validated and results were the bases of the recommendations for planning, decision-making and enhancement of the Agri-fishery programs.



METHODOLOGY

This study made use of the Mixed Method Design. The respondents of this research were 385 from the 2018-2022 graduates, experts/trainers and stakeholders in the agriculture industry of the agriculture-fishery sector from the different **TESDA Schools** and **Training Centers**, determined using a quota sampling. Frequency counts, weighted mean and percentage were used to describe the

DOI:<https://doi.org/10.66206/eduheart.2026.275>

competencies acquired while chi-square test was employed to determine the significant relationship and multivariate analysis to identify significant difference in this study.

The study employed a descriptive research method. It focused on gathering information about prevailing conditions or situations for description and interpretation. It was not simply accumulating and tabulating facts but included proper analyses, performance and identifying trends and relationships. Likewise, the number of respondents were tabulated and computed using the slovincs' formula. From 1085 total number of graduates, the slovincs' formula computed a total of 385 for quota sampling with respective number of respondents per schools and training centers. This number is used in distributing questionnaires to answer problem 1 to 4 while the problem number 5 included the 38 school administrators to get the significant difference.

Research Design

The study employed a descriptive research method. It focused on gathering information about prevailing conditions or situations for description and interpretation. It was not simply accumulating and tabulating facts but included proper analyses, performance and identifying trends and relationships. It is used to gather information related to the present situation of the problem. Descriptive correlational research is a design that seeks to explain the link between two or more variables without speculating on the causes and effects of the association. It entails gathering and examining data on at least two different variables to see whether a relationship exists between them (White and Mcburney, 2012).

Research Steps

After obtaining the necessary permits from Pangasinan State University Open University Systems to initiate data collection, the researcher sought permission from the TESDA Provincial Office through a formal letter requesting the data required for the study and ensuring responsiveness to survey needs.

The researcher adhered to the protocol for obtaining permission from the officials of the targeted TESDA Schools and Training Centers. Following the acquisition of permits, the researcher personally administered the research instrument to the identified groups of respondents thru google link.

Data Collection and Sample Selection

The list of the TESDA Schools and Training Centers offering/registered under the agriculture-fishery sector was obtained from TESDA Provincial Office of Pangasinan. Similarly, the list of Agri-Fishery graduates from 2018-2022 Agri-fishery was filtered and gathered through the Information Management System of TESDA-Pangasinan.

The data were gathered via a questionnaire that centers on the profile of the students; their areas of concern; employment profile; their level of competencies and effectiveness of the program. The questionnaire responses were gathered using Google Forms and face-to-face survey for participants who are near the area. After which the data were processed via frequency counts and weighted mean.

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After receiving the required data and transmitting a letter from the Provincial Office to various TESDA Schools and Training Centers, the researcher distributed the survey questionnaire to the intended respondents using Google Forms sent via a provided link and email address. Upon collecting all the Google Forms and survey questionnaires, each one was coded and analyzed.

Data Analysis Methods

The content validity of the instrument was established through the pool of judgment of the TESDA Trainers/experts who are not included in the study. Validators were asked to review and scrutinize the constructed questionnaire according to the content validity instrument. Validators were requested to evaluate the appropriateness of the instrument and its relevance to the objectives of the study and determined the validity of the instrument. The validators were provided with the instruments and checked their appropriateness and relevance to the study.

After establishing the validity of the instrument and incorporating all the suggestions and comments of the validators, the final draft was prepared for the actual administration to the respondents.

The final copy was presented to the researcher's adviser for comments, suggestions, revisions and for final approval.

Research Hypotheses and Validation

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Study Limitations and ethical considerations

The study followed ethical protocols by getting informed consent from all participants assuring confidentiality and granting participants the freedom to withdraw from the research at any point or interview time. Purpose of the study and data privacy act are well explained. The data and results are ensured to be protected and only gathered the information necessary for the research study.

RESULTS AND DISCUSSION

The results presented include the acquired competencies per qualifications of the Agri-fishery program that are useful in their present job and the significant relationship and difference of the perceived effectiveness of the implementation of the said sector.

Summary of Tables

Agri-Fishery Programs of TESDA Schools and Training Centers Basis for a Sustainability Plan

Table 1 – Demographic Profile of Respondents

Who are the graduates?

Category	Key Finding
Age	Majority (81.3%) are 19–25 years old
Sex	Mostly male (77.66%); female (22.08%)
Civil Status	Mostly single (94.29%)
Education	College graduates dominate (74.29%)
Top Course Taken	Organic Agriculture Production NC II (53.77%)
Year Graduated	Most graduated in 2021 (42.60%)

Table 2 – Employment Profile of Respondents

What happened after graduation?

Category	Key Finding
Work Status	57.66% permanent; 22.70% unemployed
Nature of Work	Farm workers (Organic Agriculture: 76.33%; Rice: 93.75%)
Employer Type	Mostly private TVET institution (40.52%) or selling agri-products (24.94%)
Place of Work	Mostly barangay-level (59.22%)
Position	Majority are workers/laborers (72.21%)
Time to Find Job	61.82% found work within 1–3 months of graduating

DOI:<https://doi.org/10.66206/eduheart.2026.275>

Table 3 – Degree of Competencies Acquired (Useful to Present Job)

Did training help?

Competency Area	Rating
Basic competencies	Very Highly Acquired
Common competencies	Very Highly Acquired
Core competencies	Very Highly Acquired
Usefulness to current job	Very High

Overall finding: Training competencies are very highly relevant and useful to graduates' actual jobs.

Tables 4.1–4.6 – Perceived Effectiveness of Agri-Fishery Program Components

How did respondents rate each component of the program? (Graduates, Training Institutions, and Stakeholders)

Table	Program Component	Descriptive Rating
4.1	Curriculum Implementation	Very Much Effective
4.2	Adequacy of Tools and Equipment	Very Much Adequate
4.3	Training Methods (blended, face-to-face, online, practical)	Very Much Effective
4.4	Training Materials (modules, references, handouts)	Very Much Adequate
4.5	Training Venue/Facilities	Very Much Adequate
4.6	Training Period/Duration	Just Right / Sufficient

All program components were rated Very Much Effective or Very Much Adequate across all respondent groups.

Table 5.1 – Significant Relationship: Employment Profile vs. Competencies Acquired

Chi-square test results per qualification ($p \leq 0.05 = \text{significant}$)

Qualification	Significant Relationship with Employment Profile?
Organic Agriculture Production NC II	YES – in employment status & employer's line of business ($p=0.000$)

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Production of High-Quality Inbred Rice & Farm Mechanization	YES – in employment status, occupational classification, employer's line of business
Animal Production (Ruminants) NC II	PARTIAL – only in status of employment
Animal Production (Swine) NC II	NO significant relationship
Rice Machinery Operation NC II	NO significant relationship
Aquaculture NC II	NO significant relationship
Agropreneurship NC II	NO significant relationship

Table 6 – Significant Difference: Graduates vs. Administrators on Program Effectiveness
MANOVA and Univariate Analysis of Variance results

Test	Aspect	Result
MANOVA (Wilk's Lambda)	Overall effectiveness	Significant difference (p<.001)
Univariate ANOVA	Curriculum Implementation	Significant – graduates rated it more positively
Univariate ANOVA	Time Allotment	Significant – administrators rated overall effectiveness higher

Key insight: Graduates and administrators perceive the programs differently — graduates rated curriculum more positively, while administrators rated overall effectiveness higher.

SUMMARY

The findings of the study indicated a high level of competency among respondents in their present jobs, acquired from Agriculture programs in TVET Schools and Training Centers. It typically took respondents to secure employment immediately with some engaging in farming. While Agriculture programs in TVET are limited, they align well with specialization and are effective based on set indicators. The study perceived significant difference between the graduates and administrators on curriculum implementation and effectiveness of Agri-fishery programs. Challenges include enrollment and attendance, training requirements, trainee performance, trainer competency, and program registration. The way forward involves enhancing Agri-fishery programs through career orientation, intensified TVET training, and program upgradation.

CONCLUSIONS

Based on the research findings, it can be concluded that Agriculture-fishery program in TESDA Schools and Training Centers is an effective program and a holistic approach for agri-fishery education satisfying the Training Regulation of TESDA and attained 77.40 percent of employment amongst graduates from 2018-2022.

Results of the study demonstrated a very highly manifestation of the competencies acquired that are useful to respondents' present job. It took them 1 to 3 months to secure a decent job while others are engaged in their own farm. The study revealed that Agriculture programs in TVET Schools and Training Centers are still limited, but they are in accordance with their specialization and is very effective according to the set indicators. The acquired competencies have significant relationships on the graduate's employment profile and are useful in their present job.

The degree of manifestation of the competencies acquired is very high from the employment status data. To manifest the degree of manifestation alignment between skills, knowledge and abilities gained during the respondents training and the requirements of the respondents' current employment in the agricultural and fisheries sector are some of the considerations. Graduates' ability to reinforce and apply the competencies learned during training in their day-to-day tasks on the job is crucial. The study resulted a high percentage and highest frequency in the Permanent and farm worker nature of work data.

Likewise, the graduates' profile and the extent of competencies acquired in the training institutions reflect a significant relationship on the respondents' present job. Graduates' ability to adapt their learned competencies to diverse work situations and transfer them across different job roles within the agricultural and fisheries sector enhances their employability and career advancement prospects.

Moreover, research respondents have a higher perception on the effectiveness and adequacy of agri-fishery programs in the curriculum implementation, tools and equipment, instructional materials, training strategies, training venue/period.

A significant difference in how graduates and administrators perceive the effectiveness of Agri-fishery programs, both overall and in specific aspects like curriculum implementation and time allotment. Graduates tend to rate curriculum implementation more positively, while administrators rate the overall effectiveness of Agri-fishery programs more positively compared to graduates.

Finally, a sustainability plan is crafted to be the basis to maintain or sustain the effective implementation of Agri-fishery programs of TESDA and to enhance the programs especially in developing new breed of skilled farmers in the new era.

RECOMMENDATIONS

The following are the recommendations based on the findings and in addressing the evolving needs of the agricultural sector and better equipping individuals for success in the industry:

1. TESDA Schools and Training Center may strengthen the advocacies for Agri-fishery sector especially to encourage a strong participation of Women. It is also recommended to have a

DOI:<https://doi.org/10.66206/eduheart.2026.275>

- strong support for job placement by facilitating connection with potential employers and organizing a job fair activity.
2. TESDA Schools and Training Centers in Agri-fishery programs may maintain and enhance the alignment between training programs and industry needs.
 3. TESDA may continuously updating curriculum to address current trends and opportunities within the agri-fishery sector, ensuring that they meet industry and training standards. Additionally, fostering collaboration between training institutions, graduates, and other stakeholders can further strengthen the effectiveness of these programs. By doing so, graduates will be better prepared to contribute effectively to the agri-fishery sector, promoting its growth and sustainability."
 4. Continuity of the Agriculture program prioritization with varied courses to be registered most especially in skills demand area of employment. TESDA may encourage other schools to register other related Agri-fishery courses within the economic opportunities such as Fish Capture NC II, Fishing Gear Repair and Maintenance NC III, Horticulture NC II, Landscape Installation and Maintenance NC II and Bamboo Production NC II. The establishment of additional Assessment Centers to the additional qualification is likewise recommended for the certification of skilled workers under Agriculture-Fishery sector. By implementing these recommendations, it is expected that graduates can be well-equipped with the necessary competencies to succeed in their present jobs and contribute effectively to the area-based demand employment.
 5. It is recommended that strong collaboration and communication, feedback mechanism, program evaluation, professional development and continuous improvement of the program may address any discrepancies in perceptions and may work towards bridging the gap between graduate and administrator perspectives on the effectiveness of Agri-fishery programs' implementation, ultimately enhancing the quality and impact of these programs.
 6. It is recommended that TESDA may include in the regular program the Trainer's Development Programs and Curriculum review or enhancement specially in the Agri-fishery sector. Improvement of Infrastructure is also recommended to create conducive learning environments by prioritizing the upgrading of tools, equipment and facilities of the training institutions. Likewise, it is suggested that TESDA Schools and Training Centers may enrich partnerships and collaboration with government agencies, private sector organizations, non-governmental organizations, and community groups to leverage resources, expertise, and networks in advancing agricultural education and development initiatives. This may include joint projects, research collaborations, and knowledge-sharing platforms aimed at addressing common challenges and achieving shared goals.
 7. As the curriculum is needed to be updated, tools and equipment may likewise be upgraded. Hence, training standards for Agriculture courses may be revisit and reviewed.

DOI:<https://doi.org/10.66206/eduheart.2026.275>

8. It is also recommended that research and innovation may be done during the period of training for discovery of technology for SMART Agriculture and better yield of production.
9. Further research may be undertaken in utilizing this method in other fields and areas.

ACKNOWLEDGEMENTS

We express our gratitude to all individuals who provided assistance in completing this research most especially to TESDA Region 1 and Pangasinan Provincial Office. We would also like to express our gratitude to all graduates and advocates of technical vocational training under Agri-fishery sector for the support and appreciation of the programs leading to the strengthening of the Aquaculture and other related qualifications. Ultimately, our families deserved gratitude for their lasting patience and unceasing support throughout the entire process.

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