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Beyond the Classroom: Trajectories of Technical-Vocational Livelihood Graduates of Nicolas l. Galvez Memorial, Integrated National High School

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Abstract

This study was conducted to analyze the post-graduation trajectories of Technical-Vocational-Livelihood (TVL) graduates with specialization in Agri-Fishery Arts from Nicolas L. Galvez Memorial Integrated National High School for the academic years 2018 to 2022. Specifically, the study investigated their employment status, the alignment of acquired skills with current occupations or entrepreneurial ventures, and their socio-economic conditions after completing Senior High School. Despite existing research on Technical-Vocational-Livelihood (TVL) graduates' employment outcomes, there is a notable lack of focused studies examining the specific experiences of Agri-Fishery Arts graduates. A total of 203 graduates were surveyed where 36 from 2018, 42 from 2019, 40 from 2020, 40 from 2021, and 45 from 2022 using a structured Likert-scale questionnaire as the primary data-gathering instrument. The data were analyzed using descriptive statistics to summarize respondents' demographic profiles and employment outcomes. Pearson correlation was used to identify significant relationships between demographics, career pathways, and socio-economic outcomes. Results revealed that most graduates were young, predominantly male and single, with the majority not pursuing higher education or obtaining licensure or civil service eligibility. Accessibility of the strand within the school was a key factor in enrollment decisions. While graduates rated their entrepreneurial soft skills as high, many remained unemployed or underemployed, indicating a disconnect between skills and labor market demands. Based on the findings, the study recommends strengthening employment linkages, enhancing career guidance, promoting further education and certification, improving alumni tracking, and implementing targeted training programs and teacher upskilling initiatives to better support the transition of graduates into meaningful employment.

Keywords: Agri-fishery Arts, Career Pathways, Employment Status Socio-Economic Outcomes, Technical-Vocational Livelihood, Trajectories

1. Introduction

The Philippine educational system is a multifaceted framework that spans multiple levels, from early childhood development to tertiary education, with the goal of providing all students with accessible and high-quality learning opportunities. It is divided into several levels, beginning with optional pre-school education, followed by six years of primary education. Secondary education is composed of Junior High School (Grades 7–10) and two years of Senior High School (Grades 11 and 12), where students can choose among academic, technical-vocational, or sports and arts tracks (Department of Education, 2019) [20].

DepEd Order No. 51, s. 2015 on the "Guidelines on the Implementation of the Senior High School Program in Existing Public Junior High Schools and Integrated Schools, Establishment of Stand-Alone Public Senior High Schools, and Conversion of Existing Public Elementary and Junior High Schools into Stand-Alone Senior High Schools," outlines the structure of the Senior High School (SHS) program. It details the four main tracks include Academic, Technical-Vocational-Livelihood (TVL), Arts and Design, and Sports—along with their respective strands. The order emphasizes that schools should offer tracks and strands that align with students' interests, community needs, and available resources. The TVL track includes a wide range of programs and courses designed to equip learners with practical skills, knowledge, and competencies relevant to specific trades, industries, and occupations.

The Technical-Vocational-Livelihood (TVL) Track, the focal point of this study, provides practical training in areas like Agri-Fishery Arts, Home Economics, Industrial Arts, and ICT. TVL students have the opportunity to earn TESDA National Certificates (NC I or NC II) upon passing competency assessments (Department of Education, 2020) [21]. A required Work Immersion subject, detailed in DepEd Order No. 30, s. 2017, offers at least 80 hours of hands-on experience aligned with students' strands. In addition, All SHS students must also undergo career guidance programs outlined in DepEd Order No. 41, s. 2015, to help them make informed track and strand choice. Upon completion, learners receive a Senior High School Certificate of Completion, signifying readiness for tertiary education, employment, or entrepreneurship. SHS is part of the K–12 Basic Education Program under Republic Act No. 10533, designed to equip students with the competencies, values, and work readiness to thrive in a dynamic and globalized society.

The Agriculture and Fishery Arts (AFA) strand serves as a vital component of the TVL track, providing valuable training in agricultural and fisheries practices, techniques, and management principles. It seeks to give students information and useful skills about aquaculture and agriculture. Upon completing the strand, students can work as commercial farmers, agriculturists, or managers of fish farms, or they can pursue degrees in horticulture, animal science, and agribusiness (DepEdPH., n.d.) [24].

Students who choose not to pursue higher education through traditional academic routes can benefit from TVL programs as these provide practical training and industry-relevant skills. They enable individuals to find gainful employment, contribute to economic growth, and improve their overall quality of life. Furthermore, TVL programs play a significant role in addressing the skills gap and mismatches in the labor market, where employers often struggle to find qualified candidates. According to a study by Generalao *et al*., (2025) [30], completing a technical-vocational program increases the likelihood of labor force participation, especially among individuals with at least secondary education. However, the study also noted that mismatches between training and industry needs, limited private sector involvement, and weak recognition of certifications can affect employment quality. These findings highlight the importance of aligning TVL curricula with labor market demands to ensure that graduates possess the technical skills, problem-solving abilities, and workplace readiness employers require.

Meanwhile, a tracer study is a research method commonly used in education, particularly higher education, to track and assess graduates' outcomes and experiences after they have completed their studies. The primary goal of a tracer study is to assess the effectiveness of educational programs and institutions by examining the outcomes of their graduates, how well they are prepared for the workforce or further education, and identifying areas for improvement in curriculum and teaching methods and making informed decisions about program development and resource allocation. A graduate tracer study is a very powerful tool that can provide valuable information for evaluating the whereabouts and performance of graduates (Cuadra *et al*., 2019) [16].

Tracer studies are essential for the Department of Education (DepEd) in assessing the effectiveness of educational programs and policies. By tracking graduate outcomes, the DepEd can determine whether its programs are meeting their goals, identify areas for improvement, and make evidence-based decisions to improve educational quality and relevance. Tracer studies also provide data to inform policy development, resource allocation, and workforce planning initiatives (Tan, 2020). In addition, tracer studies serve as indispensable tools for educational institutions, offering valuable insights into the effectiveness and relevance of their programs within the broader context of evolving academic and professional landscapes (Woya, 2019) [55].

Despite the growing recognition of TVL programs, there remains a pressing need to comprehensively understand the outcomes and impact of these educational pathways on graduates' career growth and socio-economic mobility. While anecdotal evidence often highlights success stories of TVL graduates securing gainful employment or entrepreneurial ventures, a systematic examination through tracer studies offers valuable insights into the broader patterns, challenges, and opportunities that shape their professional journeys beyond the classroom.

Nicolas L. Galvez Memorial Integrated National High School, recognized as one of the pioneering institutions in the District of Bay, Laguna, is the only secondary school in the area that has offered a comprehensive Technical-Vocational-Livelihood (TVL) Agriculture and Fishery Arts (AFA) strand since its implementation in 2017, a program aligned with the presence of agriculture- and fishery-related industries in the locality and nearby communities. Over five years of implementation, the school has produced a total of 221 graduates: 46 in 2018, 42 in 2019, 45 in 2020, 43 in 2021, and 45 in 2022. Initial data show that enrollment in the AFA strand has remained consistent during this period. However, despite the number of graduates, the school has not systematically tracked their post-graduation status. In line with the school's commitment to providing relevant and industry-responsive education, this study aimed to examine the career pathways and socioeconomic outcomes of its TVL–Agri-Fishery Arts strand graduates. The research was conducted during the second semester of the 2024–2025 academic year to generate evidence-based insights that can inform program evaluation and future improvements.

2. Methodology

This study employed a descriptive-survey research design to examine the career pathways and socio-economic outcomes of TVL-Agri-Fishery Arts graduates of Nicolas L. Galvez Memorial Integrated National High School from 2018 to 2022. A total of 203 graduates were surveyed where 36 from 2018, 42 from 2019, 40 from 2020, 40 from 2021, and 45 from 2022 using a structured Likert-scale questionnaire as the primary data-gathering instrument, supplemented with documentary analysis of secondary sources such as registrar records, memoranda, and files from the records office. The questionnaire consisted of four parts: demographic profile, reasons for taking the strand, career pathways, and socio-economic outcomes which were measured using a five-point Likert scale. The credibility of the findings was further supported through informal interviews and school documents.

Permission to conduct the study was secured from school authorities, and the researcher coordinated with the SHS coordinator and batch representatives for survey administration. Data were gathered, organized, and presented in tabular and graphical forms. Statistical tools

such as frequency count, percentage, weighted mean, and rank were used for descriptive analysis, while Pearson Product-Moment Correlation was applied to determine relationships between variables.

3. Results and Discussion

3.1 Demographic Profile of the TVL-Agri-Fishery Arts Graduates

Age

The data presented in Table 1 reflects the age distribution of the 203 respondents. The majority of participants (40.89%) are within the 23–24 age bracket, comprising 83 individuals. This is followed by 67 respondents (33.00%) aged 21–22, indicating that a significant portion of the sample consists of individuals in their early twenties—likely aligning with those in the latter stages of undergraduate education. Meanwhile, 43 respondents (21.18%) fall within the 25–26 age group, which may suggest either extended academic engagement or delayed entry into higher education. A smaller segment of the respondents aged 20 and below (3.94%), and only 2 individuals (0.99%) are aged 27 and above. These figures indicate a predominantly youthful population, with limited representation from older age groups, thereby emphasizing the relevance of the findings to a young adult demographic. This suggests that most of them have had enough time to explore initial employment opportunities, pursue further education, or attempt entrepreneurial ventures.

The age distribution also highlights that few respondents are either very young or significantly older, indicating that the study mostly captured the core population of recent graduates who are in a transitional phase of establishing their careers. It reflects a critical period where graduates are building their careers, exploring entrepreneurship, or gaining field experience. Therefore, this demographic data supports the relevance of designing programs and interventions that target this specific age group to further enhance their competencies and open up employment or livelihood opportunities in the agri-fishery sector.

These results align with the study of Padios *et al*. (2022) [44] which revealed that most graduates pursued either further education or sought immediate employment after completing the SHS curriculum. It emphasized how various factors, including age, economic background, and chosen strand, significantly influenced the graduates' post-SHS decisions and opportunities. This supports the current study's interest in exploring how demographic profiles such as age affect the career pathways and economic status of TVL Agri-Fishery Arts graduates.

Table 1: Distribution of the respondents according to their age

Age (in years)	Frequency	%
20 and below	8	3.94
21-22	67	33.00
23-24	83	40.89
25-26	43	21.18
27 and above	2	0.99
Total	**203**	**100%**

Sex

Table 2 presents the distribution of the 203 respondents according to their sex. The data show a significant disparity, with 189 males (93.10%) and only 14 females (6.90%). The data revealed that there is a strong gender imbalance among the graduates of the TVL Agri-Fishery Arts strand, with a significant majority being male. This suggests that the strand may be perceived as male-dominated or more appealing to male students, possibly due to the availability of the course being offered in the school, or nature of the course content which demands considerable muscular strength and physical endurance, particularly in tasks such as planting, harvesting, and carrying heavy loads. The imbalance underscores the need for targeted interventions to empower and support female participation in the sector through skills training, advocacy, and gender-sensitive program development.

This finding is consistent with the study of Caballero (2017), which found that cultural expectations, a lack of encouragement, and the perceived physical demands of agricultural work contributed to the low enrollment of female students in the TVL Agri-Fishery Arts strand.

Table 2: Distribution of respondents according to their sex

Sex	Frequency	%
Male	189	93.10
Female	14	6.90
Total	**203**	**100%**

Civil Status

As reflected in Table 3, the civil status distribution of the 203 respondents shows that the vast majority are single, with 188 individuals (92.61%), while only 15 respondents (7.39%) are married. This indicates that most of the participants are likely in the early stages of adulthood, which aligns with the typical age range of recent senior high school graduates from the TVL-Agri-Fishery Arts strand. Being predominantly single suggests that many of them may have fewer familial responsibilities, which can provide greater flexibility in pursuing further education, skills training, or employment opportunities. This demographic characteristic also reflects a population that may still be exploring their career paths, and thus could benefit from targeted support systems such as career counseling, job placement programs, or entrepreneurial initiatives aimed at young adults transitioning into the workforce.

This aligns with the observation of Burac and Habla (2023) [11], that the majority of graduates are in the early stages of adulthood, likely reflecting their recent completion of senior high school and their ongoing transition into higher education or the workforce.

Table 3: Distribution of respondents according to their civil status

Civil Status	Frequency	%
Single	188	92.61
Married	15	7.39
Total	**203**	**100%**

Year Graduated

Table 4 shows a relatively balanced trend over a five-year period, with the highest number graduating in 2018 (46 respondents or 22.66%), followed by 2020 and 2022 (each with 45 or 22.17%), 2021 (43 or 21.18%), and 2019 (42 or 20.69%). This indicates that most respondents are recent graduates, with 85 respondents (41.87%) completing their studies in the last two years. It implies that a large portion of the respondents are fresh entrants to the workforce or are just beginning to explore career or educational pathways. Their experiences can reflect current conditions of the labor market and education system.

Institutions and stakeholders may need to prioritize follow-up programs, job placement services, or further training for recent graduates, especially those navigating employment or entrepreneurship in the agri-fishery sector. According to ILO (2020) [33], young graduates often encounter barriers such as skills mismatch, limited work experience, and lack of access to labor market information, making institutional support and job placement programs essential during the early career stage. Ballesteros *et al*. (2019) [8] highlighted the importance of bridging education and industry by aligning curriculum content with real-world demands, especially for TVL graduates entering sectors like agriculture and fisheries.

Moreover, SEAMEO INNOTECH (2018) [51] found that the success of Technical-Vocational-Livelihood programs in the Philippines depends largely on sustained support mechanisms, such as entrepreneurship incubation, post-graduation tracking, and skills training that help recent graduates transition smoothly into the workforce or higher education. These studies reinforced the need for targeted interventions for recent TVL Agri-Fishery Arts graduates, as shown in the current study, where over 40% of respondents completed their education within the last two years and are in a critical phase of career development.

Table 4: Distribution of respondents according to their year graduated

Year Graduated	Frequency	%
2018	46	22.66
2019	42	20.69
2020	45	22.17
2021	43	21.18
2022	45	22.17
Total	**221**	**100%**

Educational Attainment

Depicted in Table 5 is the respondents' distribution according to their educational attainment. It revealed that the majority are Senior High School (SHS) graduates, with 165 individuals (81.28%), while only 38 respondents (18.72%) have completed a college degree. This indicates that most of the participants have not pursued higher education beyond senior high school. In the context of TVL-Agri-Fishery Arts graduates, this aligns with the core purpose of the TVL strand, which is to equip students with practical and technical skills that enable them to enter the workforce or start livelihood projects immediately after graduation.

Ballesteros & dela Peña (2022) [7] in their study "Technical-Vocational Education as a Workforce Strategy" noted that financial constraints and labor demands often lead students to forgo higher education, reinforcing the need for strong TVL-based support systems.

Table 5: Distribution of respondents according to their educational attainment

Educational Attainment	Frequency	%
College Graduate	38	18.72
SHS Graduate	165	81.28
Total	**203**	**100%**

Examination Passed

As presented in Table 6, the distribution of respondents according to examinations passed indicated that the majority are Senior High School (SHS) graduates, accounting for 165 individuals (81.28%), followed by 33 college graduates (16.26%). Only a small number have passed professional licensure exams (3 respondents or 1.48%) or obtained Civil Service Eligibility (2 respondents or 0.99%). The data suggests that the majority of TVL Agri-Fishery Arts graduates have not pursued or attained additional professional credentials beyond high school or college. This limited attainment of licensure or civil service eligibility may hinder their access to formal employment opportunities, particularly in government or regulated sectors. It also underscores the potential gap between the skills acquired in senior high school and the qualifications required for stable, long-term employment.

Torres (2021) [52] emphasized that while the TVL track equips students with practical skills, these alone may not always be sufficient in a competitive job market. Credentials act as formal proof of competency, providing employers with a standardized measure of a graduate's capabilities. The study recommended stronger linkages between schools and certification bodies, the integration of credential-preparation into the senior high school curriculum, and community outreach programs to inform students of the benefits of pursuing licensure and eligibility.

This research supports the implication of the current study that a lack of professional and civil service credentials among graduates may limit their employment opportunities. It also affirms the need for policy and programmatic interventions to bridge the gap between SHS graduation and career readiness through accessible credentialing pathways.

Table 6: Distribution of respondents according to their examination passed

Examination Passed	Frequency	%
Licensure Examination	3	1.48
Civil Service Examination	2	0.99
Total	**5**	**2.47%**

3.2 Reasons for Taking the TVL-Agri-Fishery Arts Strand

Table 7 presents the mean scores and standard deviations for the reasons cited by TVL-Agri-Fishery Arts students in choosing the strand. The data revealed that the perceived career pathways of TVL graduates had an overall mean of 3.67, indicating that most reasons provided by respondents fall under the "High" category of influence in their decision to pursue the strand. The highest-rated factor was the *availability of the Agri-Fishery Arts track in the school* (M = 4.68, SD = 0.47), suggesting that accessibility and the presence of the strand within the school played a decisive role in student choice. This may reflect either limited alternative options or strong institutional promotion of the program.

Meanwhile, Affordable for the family (M = 4.23, SD = 0.67), reflects how economic considerations strongly affect decision-making, with many families likely viewing this strand as cost-effective compared to more academic or urban-centered strands. On the contrary, the other reasons with "High" interpretation such as, Strong passion for Agri-Fisheries (M = 3.89) suggests that students are personally interested in the field, not just choosing it for practical reasons. Good grades/High grades in JHS (M ≈ 3.78–3.79) indicates that students with good performance were likely steered into this strand, possibly due to alignment with performance in related subjects. Prospect for

employment/career advancement/abroad/compensation (M ≈ 3.70–3.78) suggest that students see Agri-Fishery Arts not just as practical, but as a viable path for long-term economic benefit. Finally, the Influence of peers (M = 3.78) indicates that peer dynamics continue to be relevant in shaping academic and career paths.

Conversely, reasons such Influence of parents/relatives (M = 3.00) was surprisingly low compared to peer influence, indicating that family pressure or guidance played a lesser role in this specific track choice. Status/prestige of Agri-Fishery Arts (M = 2.63) indicates a perceived low prestige, which could point to social or cultural undervaluing of agricultural careers, despite their economic importance. No particular choice/better idea (M = 2.89) suggests that a minority chose the strand by default, without strong reasoning, possibly due to lack of counseling.

These findings show that students choose the TVL-Agri-Fishery Arts strand based on both practical reasons (such as affordability and employment opportunities) and personal interest. However, the strand's low social recognition may negatively impact student commitment in the long term. Peer influence appears more significant than family influence, potentially due to limited parental involvement or awareness. These insights highlight the need to improve the public image of TVL tracks and increase family engagement in supporting students' career paths.

The EDCOM II Year One Report, titled *"Miseducation: The Failed System of Philippine Education"*, provides insights into the advantages and challenges of the Technical-Vocational-Livelihood (TVL) track, particularly the Agri-Fishery Arts strand.

The TVL Agri-Fishery Arts strand offers several advantages, including early exposure to industry practices, hands-on training, and alignment with national goals for food security and economic development. Partnerships with companies like Toyota and Grohe have helped enhance students' practical skills and employability by bridging the gap between school and industry. However, the strand also faces notable challenges. Access remains limited, as only a small percentage of schools offer the program, often due to shortages in qualified teachers, resources, and infrastructure. Additionally, the strand suffers from low social prestige, which can discourage student enrollment and long-term engagement. These issues highlight the need for greater investment, improved public perception, and stronger industry-academic linkages to fully realize the strand's potential in preparing students for sustainable careers in agriculture and fisheries.

These results align with the study by Kambat & Robles (2023) [34], which emphasized the importance of community stakeholders' perceptions toward the offering of the TVL track for sustainable development in Olandang National High School. Their findings highlighted the feasibility of implementing the proposed TVL Track, particularly the Agri-Fishery Strand, across geographical areas, underscoring the significance of institutional support and community involvement in the success of such programs.

These studies collectively underscore that the decision to pursue the TVL-Agri-Fishery Arts Strand is influenced more by accessibility, passion, and practical considerations rather than prestige or lack of better options.

Table 7: Reasons for taking the TVL-Agri-Fishery Arts Strand

S. No	Reasons for taking the TVL-Agri-Fishery Arts Strand	Mean	SD	Verbal Interpretation
1	High grades in Junior High School or subjects related to Agri-Fishery Arts	3.78	0.71	High
2	Good grades in Junior High School	3.79	0.72	High
3	Influence of parents/relatives	3.00	1.10	Average
4	Influence of peer (friends)	3.78	0.71	High
5	Strong passion for Agri-Fisheries	3.89	0.59	High
6	Prospect for immediate employment	3.70	0.69	High
7	Status/prestige of Agri-fishery Arts	2.63	0.83	Average
8	Availability of track in the school offering Agri-fishery Arts strand	4.68	0.47	Very High
9	Prospect of career advancement/college	3.76	0.63	High
10	Affordable for the family	4.23	0.67	Very High
11	Prospect of attractive compensation	3.76	0.70	High
12	Opportunity for employment abroad	3.78	0.72	High
13	No particular choice/better idea	2.89	1.19	Average
	Overall Mean	**3.67**	**0.38**	**High**

Legend: 4.21 – 5.00 = Very High; 3.41 – 4.20 = High; 2.61 – 3.40 = Average; 1.81 – 2.60 = Low; 1.00 – 1.80 = Very Low

3.3 Perceived Career Pathway of the TVL Graduates

Entrepreneurial Skills

A. Soft Skills

Table 8 indicates the mean scores and standard deviation about the perceived career pathway of the TVL graduates as to entrepreneurial skills – soft skills. TVL-Agri-Fishery Arts strand graduates showed a generally "high level of competency", with an overall mean of 4.02 (SD = 0.15), interpreted as "High." Among all soft skills, "Friendliness" recorded the highest mean score of 4.84 (SD = 0.37), earning a "Very High" verbal interpretation.

In contrast, "Conflict resolution" obtained the lowest mean score of 2.91 (SD = 0.54), with a verbal interpretation of "Average." This pointed to a potential area for improvement, as effectively handling disputes and maintaining harmony in the workplace are vital skills in both entrepreneurial and collaborative environments.

Llenado and Inot (2022), who emphasized the importance of strengthening soft skill development in vocational education. Their research concluded that while many soft skills were well developed among TVL graduates, competencies such as conflict resolution and public speaking required further enhancement through targeted training and curricular improvements.

According to Robles (2012), soft skills are often more important than technical skills in determining long-term career advancement. Employers consistently rate interpersonal skills, work ethic, and emotional intelligence as key indicators of a candidate's potential, especially in leadership and entrepreneurial roles. This implies that for

TVL graduates, mastering soft skills can enhance employability and entrepreneurial performance even if their technical knowledge is sound.

Succi and Canovi (2020) emphasized that students who invest in soft skill development during their education are more likely to secure employment aligned with their field of study, and they tend to exhibit greater career mobility and satisfaction over time. This suggests that integrating soft skills training in TVL programs, especially in areas like Agri-Fishery Arts, can facilitate smoother transitions into entrepreneurship or professional work.

Table 8: Perceived Career Pathway of the TVL Graduates as to Entrepreneurial skills-Soft Skills

S. No	Soft Skills	Mean	SD	Verbal Interpretation
1	Public speaking	3.22	0.41	Average
2	Negotiation	3.41	0.53	High
3	Conflict resolution	2.91	0.54	Average
4	Confidence	4.17	0.43	High
5	Friendliness	4.84	0.37	Very High
6	Empathetic listening	4.34	0.47	Very High
7	Decision making	3.79	0.73	High
8	Adaptability	4.06	0.72	High
9	Team building	3.99	0.43	High
10	Reliability	4.05	0.42	High
11	Delegation	3.54	0.61	High
12	Rapport	4.76	0.43	Very High
13	Creativity	4.25	0.43	Very High
14	Innovation	3.89	0.70	High
15	Analytical thinking	3.96	0.35	High
16	Leadership	4.30	0.49	Very High
17	Work ethics	4.42	0.49	Very High
18	Professional attitude	4.54	0.50	Very High
	Overall Mean	**4.02**	**0.15**	**High**

Legend: 4.21 – 5.00 = Very High; 3.41 – 4.20 = High; 2.61 – 3.40 = Average; 1.81 – 2.60 = Low; 1.00 – 1.80 = Very Low

B. Hard Skills

Table 9 presents the perceived level of hard skills among TVL-Agri-Fishery Arts graduates, specifically in relation to their entrepreneurial potential. The data reflect an overall mean of 3.68 (SD = 0.54), which falls under the "High" verbal interpretation. Among the listed hard skills, "Presentation skills" recorded the highest mean score of 3.77 (SD = 0.71). Conversely, "Computer literacy" received the lowest mean score of 3.60 (SD = 0.74), though still rated as "High."

These findings align with the study by Villacorta and Arnado (2023) [34], which highlighted the importance of strengthening both soft and hard entrepreneurial skills in the TVL track. They emphasized the need to enhance practical, technology-based competencies to prepare students more effectively for self-employment or further training.

Table 9: Perceived Career Pathway of the TVL Graduates as to Entrepreneurial skills- Hard Skills

S. No	Hard Skills	Mean	SD	Verbal Interpretation
1	Marketing skills	3.70	0.66	High
2	Computer literacy	3.60	0.74	High
3	Project management	3.73	0.59	High
4	Writing skills	3.65	0.75	High
5	Presentation skills	3.77	0.71	High
6	Data analysis	3.63	0.74	High
	Overall Mean	**3.68**	**0.54**	**High**

Legend: 4.21 – 5.00 = Very High; 3.41 – 4.20 = High; 2.61 – 3.40 = Average; 1.81 – 2.60 = Low; 1.00 – 1.80 = Very Low

Employment Opportunities

The data in Table 10 depicts a comprehensive overview of how TVL Agri-Fishery Arts graduates perceive their career development pathways and employment opportunities. The results strongly reflect the high value graduates place on structured career development programs and systems within organizations. The highest-rated item, "Programs related to career development are important to improve my knowledge" (M = 4.56, SD = 0.50), was interpreted as "Very High", closely followed by the belief that such programs enhance career opportunities (M = 4.49), skills (M = 4.43), and motivation (M = 4.39). These findings show a shared understanding among graduates of the importance of continuous learning and personal growth for employability and advancement. Moreover, the item "The career path system is important for me to obtain career information" (M = 4.30) affirms the graduates' need for transparency and guidance in their professional journeys.

Conversely, relatively lower ratings though still categorized as "High" were noted in terms of personal engagement and clarity of organizational systems such as, "I am aware that the organization has a career path system" (M = 3.80), and "The organization provides a clear career path system to employees" (M = 3.68), suggest a potential gap in employer communication or support. Similarly, "I always involve myself in career development programs" (M = 4.08) and "I am constantly following the development of the organization's career path system" (M = 3.98) may indicate barriers to access or limited post-graduation support mechanisms. "My career development is influenced by performance evaluation" (M = 3.67) rated "High," this shows that students understand how external feedback helps shape professional growth, but may lack consistent exposure to such systems. "I frequently evaluate my career performance" (M = 3.79) reflects proactive self-assessment practices, a critical soft skill in the workforce. "Career performance evaluation is very important for me and my career" (M = 2.88) this lower "Average" score reveals a disconnect; while students may engage in evaluation, they may not fully recognize its long-term value. "I am confident in the organization's performance evaluation" (M = 4.47) indicates strong trust in external systems when properly implemented, supporting the idea that institutions and employers play a vital role. "I always use my performance evaluation as a reference" (M = 4.14) – Suggests that evaluations are seen as practical tools to guide decision-making and goal setting.

Collectively, these results emphasize the importance of both internal (self-evaluation) and external (organization-led evaluation) mechanisms in effective career planning. However, the comparatively low rating for the importance of performance evaluation points to a need for better integration of reflective practices within the school curriculum and graduate support systems.

These findings align with several key points of the Second Congressional Commission on Education (EdCom II, 2023). The report emphasized the following: the need to redefine Senior High School (SHS) to ensure it leads to employment or higher education, the importance of career development and performance monitoring as essential to workforce readiness, and the push for strengthening TVL tracks through enhanced curriculum design, partnerships with industry, and support systems for learners.

The gap in understanding the value of performance evaluation (as seen in item 12) directly connects to EdCom's call for a stronger link between education and employment outcomes, ensuring students not only graduate with skills but also with the ability to reflect, evaluate, and grow within their chosen fields.

Table 10: Perceived career pathway of the TVL graduates as to employment opportunities

S. No	A. Employment Opportunities	Mean	SD	Verbal Interpretation
1	The career development program is important in improving my skills	4.43	0.50	Very High
2	Programs related to career development are important to improve my knowledge	4.56	0.50	Very High
3	The career development program is important in improving my career opportunities	4.49	0.50	Very High
4	The career development program motivates me	4.39	0.50	Very High
5	I always involve myself in career development programs	4.08	0.71	High
6	I am aware that the organization has a career path system	3.80	0.73	High
7	The career path system is important for me to obtain the career information	4.30	0.46	Very High
8	The organization provides a clear career path system to employees	3.68	0.70	High
9	I am constantly following the development of the organization's career path system	3.98	0.62	High
10	My career development is influenced by performance evaluation	3.67	0.77	High
11	I frequently evaluate my career performance	3.79	0.72	High
12	Career performance evaluation is very important for me and my career	2.88	1.05	Average
13	I am confident in the organization's performance evaluation	4.47	0.50	Very High
14	I always use my performance evaluation as a reference	4.14	0.35	Average
	Overall Mean	**4.05**	**0.24**	**High**

Legend: 4.21 – 5.00 = Very High; 3.41 – 4.20 = High; 2.61 – 3.40 = Average; 1.81 – 2.60 = Low; 1.00 – 1.80 = Very Low

3.4 Socio-economic Outcome of TVL-Agri-Fishery Arts Graduates

Employment Status

Table 11 shows the employment status distribution of respondents who graduated from the TVL-Agri-Fishery Arts strand. Out of the 203 respondents, the largest group consisted of unemployed individuals, totaling 80 or 39.4% of the sample composed of 24 males and 12 females are unemployed and did not pursue higher education, totaling 36 respondents while 19 males and 25 females are unemployed but are currently pursuing college, totaling 44 respondents. This indicates that that more females (25) than males (19) are continuing their education while unemployed, while twice as many males (24) as females (12) neither work nor pursue higher education. This suggests a gender-based divergence in post-SHS decision-making. Females appear to be more inclined toward educational continuity, potentially positioning themselves for longer-term employability and upward social mobility despite short-term unemployment. The data indicates a significant gap between the skills acquired in the strand and the actual employment opportunities available. This high unemployment rate may point to limitations in local labor market absorption, lack of entrepreneurial support, or insufficient job matching systems for graduates. It also highlights a potential disconnect between technical-vocational education and industry demands, particularly in the agri-fishery sector.

These findings triangulate with NEDA's Philippine Development Plan 2023–2028, which underscores a growing mismatch between technical-vocational education outcomes and labor market realities. Particularly, the rise of NEET youth and low participation in agriculture among TVET graduates mirror the national trend of disengagement from rural industries. Thus, aligning TVL Agri-Fishery curriculum and post-graduation support with NEDA's inclusive growth agenda is essential for enhancing employability and socio-economic resilience.

This concern was also highlighted in the study of Masong and Barillo (2022) [40] on the employability of Technical-Vocational Livelihood Senior High School graduates, the authors highlighted that graduate possessing National Certificate II (NC II) had better employment outcomes. It suggests that obtaining relevant certifications and fostering strong work ethics are crucial for improving the employment prospects of TVL graduates.

Table 11: Socio-economic outcome of TVL-AFA graduates as to employment status

Employment Status	Frequency	%
Employed/Contractual	63	31.03
Employed/Part-time	6	2.96
Employed/Full Time	42	20.69
Self-employed/Freelancer	11	5.42
Self-employed/Business	1	0.49
Unemployed	80	39.41
Total	**203**	**100%**

Income

Table 12 revealed that among the 203 respondents who graduated from the TVL-Agri-Fishery Arts strand, the majority earn relatively low monthly incomes. Specifically, 68 respondents (33.50%) reported earning less than Php5,000.00, followed by 55 respondents (27.10%) who earn between Php5,001.00 and Php10,000.00. Additionally, 37 respondents (18.22%) fall within the Php10,001.00–15,000.00 range, 28 respondents (13.80%) earn Php15,001.00–20,000.00, and only 15 respondents (7.38%) receive between Php20,001.00 and Php25,000.00. This income distribution indicates that approximately 60.6% of the graduates are earning Php10,000.00 or less per month, highlighting the limited financial gains many experiences after completing their senior high school education.

This implies that most graduates are engaged in low-wage or entry-level jobs, possibly in informal or seasonal work common in agri-fishery settings. This trend suggests that the current employment opportunities available to TVL-Agri-Fishery Arts graduates may not fully leverage their acquired technical skills, and that further interventions are needed to help them achieve economic stability and upward mobility.

According to AmBisyon Natin 2040, Filipinos aspire to have a *"matatag, maginhawa, at panatag na buhay"* by 2040. The benchmark for a decent living income for a family is ₱120,000/month, translating to about ₱30,000 per

working adult. With only 15 out of 203 graduates earning over ₱20,000, the data confirms that the vast majority are still far from achieving this vision. This calls for strengthening career support and income mobility within the TVL sector.

According to Reyes *et al*. (2019) [48], TVL graduates in agricultural sectors often face income constraints due to the seasonal nature of agricultural work and limited access to formal employment. Their study highlights the need for enhanced vocational training programs that include business management and market access skills, enabling graduates to diversify income sources and improve economic stability.

On the other hand, the data on Monthly Gross Income and Employment Status among the 203 respondents reveal insightful patterns about economic conditions and employment types in the group surveyed. A significant portion of respondents (39.41%) reported being unemployed, which aligns closely with the high frequency of lower income brackets. For example, 33.5% of respondents earn less than Php5,000.00 monthly, which may largely include unemployed individuals or those with irregular income sources.

Among the employed, the majority are either on contractual (31.03%) or full-time (20.69%) employment. These employment categories likely correspond to the middle-income groups. This is supported by the data showing that 27.1% of respondents earn between Php 5,001.00 to 10,000.00, and 18.22% earn between Php 10,001.00 to 15,000.00. These income brackets could reflect the earnings of contractual and full-time workers in the sample.

The part-time employed and self-employed/freelancers/business owners constitute a smaller portion of the sample (together about 8.87%). These groups might experience varied income levels but potentially contribute to the mid to upper income brackets, such as Php 15,001.00 and above, given the flexibility and variability of freelance or business income.

Overall, the data suggest a strong correlation between employment status and monthly income level, where unemployment is associated with the lowest income category, and stable employment (contractual or full-time) correlates with middle income brackets. This pattern highlights the economic challenges faced by the unemployed and underlines the importance of stable employment in improving monthly income.

Table 12: Socio-economic outcome of TVL-AFA graduates as to their income

Monthly Gross Income	Frequency	%
Less than Php 5,000.00	68	33.50
Php 5,001.00-10,000.00	55	27.10
Php 10,001.00-15,000.00	37	18.22
Php 15,001.00-20,000.00	28	13.80
Php 20,001.00-25,000.00	15	7.38
Total	**203**	**100%**

Career Advancement

Table 13 outlines the distribution of TVL-Agri-Fishery Arts strand graduates based on their pursuit of higher education or career advancement. Out of 203 respondents, only 76 (37.44%) pursued further studies while there were 127 (62.56%) did not pursue further studies after completing the Senior High School (SHS) program due to financial constraints, immediate need to work particularly those in households with limited source of income, lack of access to educational institutions, family obligations such as caring for siblings or relatives that might prevent them from continuing their studies, and some respondents perceived that pursuing further studies will not necessarily guarantee better job prospects, especially if local employment opportunities do not require a college degree.

The most popular program was BS Entrepreneurship, chosen by 12 respondents, which accounts for the largest share in the career advancement distribution. Other notable programs include BS Criminology (6 respondents), BS Infotech (8 respondents), and BS Education (7 respondents). On the other hand, BS Tourism (2 respondents), BS Engineering (2 respondents), and BS Forester (1 respondent) are among the least chosen program.

The diversity of programs selected by the 76 students who pursued higher education, with BS Entrepreneurship being the most popular, implies a growing interest in self-employment or business ventures, which aligns with the entrepreneurial focus of the TVL strand. However, the low enrollment in agriculture-related programs like BS Agriculture or BS Forestry suggests a disconnect between the strand's focus and students' actual higher education paths, possibly due to limited opportunities and access to enroll in college/universities offering agriculture-related disciplines, or due to financial instability of the family to support the study of their son/daughter. It is suggested that the Department of Education should introduce scholarship programs or link students to government assistance to reduce the financial burden of tertiary education.

This result was noted from the study of Caballero (2019) [12], that although TVL tracks promote entrepreneurship, graduates often lack the advanced business knowledge and support systems necessary to thrive, highlighting the importance of continuing education.

Table 13: Socio-economic outcome of TVL-AFA graduates as to their career advancement

Degree	Frequency	%
BS Agri-Economics	5	2.46
BS Criminology	6	2.96
BS Entrepreneurship	12	5.91
BS Fishery Education	7	3.45
BS Information Technology	8	3.94
BS Education	7	3.45
BS Psychology	5	2.46
BS Tourism	2	0.96
BS HRM	5	2.46
BS Nursing	3	1.48
BS Engineering	2	0.96
BS Accountancy	1	0.49
BS Business Administration	4	1.97
BS Computer Science	4	1.97
BS Electronics	2	0.96
BS Food Technology	2	0.96
BS Forestry	1	0.49
Did not pursue higher education	127	62.56
Total	203	100%

3.5 Relationship between the Demographic Profile and Graduates and Career Pathways of TVL-Agri-fishery Arts Graduates

Table 14 displays the significant relationship between the demographic profile of TVL-Agri-Fishery Arts Graduates and their career pathways, specifically focusing on entrepreneurial skills and employment opportunities. The data revealed significant positive correlations between various demographic factors and the development of both soft and hard skills, as well as the employment opportunities available to graduates.

Regarding entrepreneurial soft skills, several demographic factors exhibited statistically significant positive correlations. *Age (0.125), *sex (0.102), and civil status (0.184)* all have shown a significant influence on the development of soft skills, suggesting that these factors play a role in shaping graduates' interpersonal and communication abilities. The strongest correlation was with **educational attainment (0.239*) **, indicated that graduates with higher levels of education were likely to possess stronger soft skills. These findings were aligned with Villacorta and Arnado (2023) [54], who emphasized the role of educational outcomes in the development of interpersonal skills among vocational graduates.

For hard skills, the correlations are generally positive across various demographic factors, including *age (0.200), *sex (0.184), civil status (0.184), and *educational attainment (0.194).* These findings suggest that demographic factors influence the development of technical competencies among graduates. Notably, year graduated *(0.219)* has the strongest correlation, implying that more recent graduates may possess stronger hard skills, potentially due to updates in training methods or curriculum. The education passed *(0.184)* also shows a positive correlation, suggesting that academic performance plays a role in acquiring hard skills. This is consistent with the study by Bernardo *et al*. (2023), which found that educational achievement was a key factor in developing hard skills and technical competencies in TVL programs.

In terms of employment opportunities, the most significant correlation is with educational attainment (0.454), which shows a strong positive relationship with securing better job opportunities. This suggests that higher educational qualifications are closely linked to improved career prospects. Additionally, *age (0.185), *sex (0.115), and education passed (0.115)* show positive correlations, though these are weaker compared to educational attainment. These findings are consistent with Kambat and Robles (2023) [34], who also found that educational attainment significantly influenced the employment prospects of TVL graduates, emphasizing that higher education levels lead to greater career opportunities.

These results underscore the importance of educational achievement in shaping career success and suggest that career development programs tailored to specific demographic groups could further enhance graduates' employability. This is supported by research from Bernardo *et al*. (2023) and Kambat and Robles (2023) [34], which both highlight the critical role of education in enhancing the career prospects of TVL graduates.

Table 14: Relationship between the demographic profile and career pathways of TVL- Agri-Fishery Arts graduates

Career Pathways	Demographic Profile of the Respondents					
	Age	Sex	Civil Status	Educational Attainment	Year Graduated	Examination Passed
Entrepreneurial Skills						
A. Soft Skills	0.125	0.102	0.184	0.239	0.084	0.125
B. Hard Skills	0.200	0.184	0.184	0.194	0.219	0.184
Employment Opportunities	0.185	0.115	0.053	0.454	0.15	0.115

3.6 Relationship between the Demographic Profile and Graduates and Socio-economic Outcome of TVL-Agri-fishery Arts Graduates

Table 15 explores the relationship between the demographic profile of TVL-Agri-Fishery Arts graduates and their socio-economic status, specifically looking at income and career advancement.

Regarding income, *age (0.185)* * and civil status (0.214) exhibited significant positive correlations, suggesting that older graduates and those with different marital statuses may have higher incomes. The correlation with *educational attainment (0.135)* * also showed a positive relationship, indicated that graduates with higher educational qualifications tend to earn more. These findings are supported by Villacorta and Arnado (2023) [54] who found that socio-economic status was often influenced by age and educational attainment.

In terms of career advancement, the table reveals a significant positive correlation with **educational attainment (0.139*) **, suggesting that higher levels of education may lead to better career advancement opportunities. The findings align with Bernardo *et al*. (2023), who highlighted that educational achievement remains one of the key determinants of career advancement, particularly in vocational fields.

Overall, income appears to be more significantly influenced by age and civil status, while career advancement is more closely tied to educational attainment. The findings suggest that while socio-economic status is shaped by various demographic factors, education continues to be the most significant factor in both income and career advancement. These conclusions are consistent with the research of Kambat and Robles (2023) [34], which emphasized the role of education in improving the socio-economic mobility of vocational graduates.

Table 15: Relationship between the demographic profile and socio-economic status of TVL-Agri-Fishery Arts graduates

Socio-economic Status	Demographic Profile of the Respondents					
	Age	Sex	Civil Status	Educational Attainment	Year Graduated	Examination Passed
Income	0.185	0.115	0.214	0.135	0.085	0.108
Career Advancement	0.275	0.112	0.052	0.139	0.194	0.015

4. Conclusion

Based on the findings of the study, it is therefore concluded that the majority of TVL–Agri-Fishery Arts strand graduates from 2018 to 2022 were young adults, predominantly single, and had not pursued higher education beyond the Senior

High School (SHS) level. A notable gender imbalance was observed, with male graduates representing the majority of respondents. Most participants graduated within the last two years, indicating that the study reflected recent trends in graduate outcomes.

The data further revealed that only a small portion of the graduates had taken licensure examinations or obtained civil service eligibility, which limits their access to specialized or public sector employment. While respondents rated their soft skills as high particularly those related to entrepreneurship, many remain unemployed or underemployed. This suggests a gap between acquired competencies and actual labor market demands.

The availability of the Agri-Fishery Arts strand within their school was a major factor in students' decision to enroll, indicating that accessibility remains a significant influence on career pathways. Furthermore, the income distribution of graduates highlights the need for better employment linkages, continuous skills development, and post-graduation support.

While TVL–Agri-Fishery Arts graduates demonstrated potential through their soft skills and vocational training, there is a pressing need to bridge the gap between education and employment to enhance their long-term career success and socioeconomic advancement.

5. Recommendations

Based on the study's findings and conclusions, it is recommended that stronger employment linkages be established between schools offering the TVL–Agri-Fishery Arts strand and relevant industries to enhance graduates' job opportunities. Career guidance programs should be intensified, and students should be encouraged to pursue further education or certification to boost employability. Schools may adopt tracer systems to monitor graduate outcomes and inform curriculum improvements. Graduates' strong soft skills, especially in entrepreneurship, should be further developed through targeted training in agripreneurship and financial literacy. Additionally, policy support should ensure accessibility and alignment of programs with labor market needs, while regular upskilling and industry immersion for teachers must be implemented to strengthen instructional quality and relevance.

6. References

1. Acar B. Immersion program for academic track and the higher education tracer profile of the first batch graduates. International Journal of Innovation and Research in Educational Sciences. 2019; 6(2):256- 262.
2. Acut D, Curaton E, Latonio G, Latonio RA. Work immersion performance appraisal and evaluation of grade 12 STEM students in science and technology-based industries. Easy Chair Preprint no. 1958. Retrieved from https://easychair.org/publications/ preprint open/MTw3 (2019)
3. Alcazar J. Technical-Vocational Education and Training (TVET) in the Philippines: A Review of Policies, Practices, and Challenges. Philippine Journal of Development. 2017; 44(1):105-128.
4. Alejandro RA, Bucad ML Jr. Readiness of technical vocational and livelihood (TVL) students of Simpucan National High School. Studies in Technology and Education. 2024; 2(2):72-79.
5. Bacaling Maurice Dences B. Career Decision and K To 12 Curriculum Exits of Senior High School Students Sta. Cruz National High School, Sta. Cruz, Davao del Sur, Philippines, 2019.
6. Balasbas Regie. Taal District Partnership Support Program Framework for Senior High School Curriculum Exits Plan. Department of Education, Taal Senior High School, Philippines, 2021.
7. Ballesteros M, Dela Peña M. Technical-vocational education as a workforce strategy: A case study on post-senior high school employment outcomes. Journal of Technical and Vocational Education. 2022; 18(2):45-60.
8. Ballesteros MM, Orbeta AC, Del Mundo HB. Assessment of the Senior High School Program in the Philippines. Philippine Institute for Development Studies (PDIS), 2019.
9. Barrington-Leigh C, Schneider P. Global Job Mismatch, Population Research and Policy Review. 2009; 28(1):91-107.
10. Boateng A, Annor F. Technical Vocational Education and Training (TVET) and Youth Employment in Ghana: A Study of Techiman Municipality. International Journal of Education and Research. 2015; 3(7):263-280.
11. Burac MA, Habla JM. Examining the Relationship Between Demographic Profile, Level of Preparedness, and Competencies Among Senior High School TVL First-Batch Graduates of Selected Public Schools of the Division of Puerto Princesa. International Journal of Research and Innovation in Social Science. 2023; 7(4):445-477.
12. Caballero C. Employability of Senior High School Graduates of the Technical-Vocational-Livelihood Track. International Journal of Education and Research. 2019; 7(12):43-54.
13. Cabral Jhimson. Curriculum Exit-based Career Counselling Module for Senior High School Students Integrated National High School, Buhaynasapa, San Juan, Batangas, Philippines, Batangas State University, Rizal Ave., Batangas City, Philippines, 2021.
14. Carada, Imelda G, *et al*. Perceived Skills and Employability of Senior High School Graduates: Basis for Youth Employment Policy. Imelda, Laguna State Polytechnic University San Pablo City, Laguna, 2022.
15. Cartas Madely O. Curriculum Exits of Technical Vocational Livelihood Grade 12 Senior High School of Palawan National School SY 2022-2023: Basis for Support Program Framework, Palawan State University, 2023.
16. Cuadra LJ, Aure MRKL, Gonzaga GL. The Use of Tracer Study in Improving Undergraduate Programs in the University. Asia Pacific Higher Education Research Journal (APHERJ). 2019; 6(1). Doi: https://doi.org/10.56278/apherj.v6i1.1315
17. Cruz R, Santos M. Entrepreneurial Aspirations and Experiences of TVL Graduates: A Qualitative Study. Philippine Journal of Entrepreneurship. 2018; 5(2):75-88.
18. Department of Agriculture (DA) Bureau of Agricultural Engineering (BAFE). DA Rapid Assessment for Agri-Fisheries Sector Transformation, 2023. Retrieved from: https://fliphtml5.com/yuwbr/datk/DA_Rapid_Assessment_for_AgriFisheries_Sector_Transformation/
19. Department of Agriculture (DA) Western Visayas.

Agri-fishery scholarship programs presented to Aklan youths, 2024. Retrieved from: https://westernvisayas.da.gov.ph/agri-fishery-scholarship-programs-presented-to-aklan-youths/
20. Department of Education. DepEd Order No. 21, s. 2019 on the "Policy Guidelines on the K to 12 Basic Education Program", 2019. Retrieved from: https://www.deped.gov.ph/wp-content/uploads/2019/08/DO_s2019_021.pdf
21. Department of Education. DepEd Order No. 35, s. 2020 on the "Guidelines on the Implementation of Joint Delivery Voucher Program for Senior High School Technical-Vocational-Livelihood (JDVP-TVL) Specializations for SY 2020-2021", 2020. Retrieved from: https://www.deped.gov.ph/wp-content/uploads/2020/11/DO_s2020_035.pdf
22. Department of Education. DepEd Order No. 41, s. 2015 on the "Senior High School Career Guidance Program and Early Registration", 2015 Retrieved from: https://www.deped.gov.ph/2015/08/28/do-41-s-2015-senior-high-school-career-guidance-program-and-early-registration-amended-by-do-48-s-2015-amendment-to-deped-order-no-41-s-2015-senior-high-school-career-guidance-program-and/
23. Department of Education. DepEd Order No. 51, s. 2015 on the "Guidelines on the Implementation of the SHS Program in existing public schools, stand-alone SHSs, and conversions", 2015. Retrieved from: https://www.deped.gov.ph/wp-content/uploads/2015/10/DO_s2015_51_0.pdf
24. DepEdPH. TVL strand courses in the Philippines. DepEdPH, N.D. https://depedph.com/tvl-strand-courses/
25. Doss C, Kovarik C, Peterman A, Quisumbing A, Van Den Bold M. Gender inequalities in ownership and control of land in Africa: Myths versus reality. Food Policy. 2015; 52:54-63. Doi: https://doi.org/10.1016/j.foodpol.2015.02.003
26. Edcom II. Miseducation: The failed system of Philippine education. Second Congressional Commission on Education, Year One Report, 2024. Retrieved from: https://edcom2.gov.ph/media/2024/02/EDCOM-II-Year-One-Report-PDF- 022924.pdf
27. Eurofound. Skills Mismatch in Europe: Insights and Policy Recommendations. Publication Office of the European Union, 2018.
28. Froy F, Giguere S, Megha-Bongnkar G. Vocational Education and Training for Youth: Towards Coherent Policy Programs. OECD Publishing, 2014.
29. Garcia E, *et al*. Lifelong Learning and Career Advancement: The Role of Skills Development Programs for TVL Graduates. 202; 18(1):12-28.
30. Generalao INA, Balaoro JM, Lorenzo PJM, Rivera JPR. Examining the effects of Technical Vocational Education and Training (TVET) on employment outcomes in the Philippines. Philippine Institute for Development Studies, 2025. Retrieved from: https://doi.org/10.62986/dp2025.08
31. Hernandez B. Impact of TVL Education on Employability and Earnings Potential Evidence from a Longitudinal Study. Philippine Journal of Vocational Education. 2019; 15(1):25-38.
32. Hutchinson Elizabeth D. An Update on the Relevance of the Life Course Perspective to Social Work, 2019.
33. International Labor Organization (ILO). Global employment trends for youth 2020: Technology and the future of jobs. ILO Publishing, 2020.
34. Kambat AP, Robles ACM. Feasibility Study on the Offering of Technical, Vocational, and Livelihood (TVL) Track for Sustainable Development of a Community in Olandang National High School. Psychology and Education: A Multidisciplinary Journal. 2023; 13:439453. Doi: https://doi.org/10.5281/zenodo.8341531
35. Kikeri S, Ahmed S. Job Mismatch Finding and Losing Work in Developing Countries. World Bank Publications, 2011.
36. Klasik D, Strayhorn T. The complexity of college readiness: Differences by race and college selectivity. Educational Researcher. 2020; 47(6):334-351.
37. Lupas Silvino. Factors Influencing Career Choices Among High School Students in Zambales, Magsaysay State University, Iba, Zambales, Philippines, 2021.
38. Manchishi PC, Simui F, Ndhlovu D, Lukali-Thompson C. Tracing the experiences of an inaugural postgraduate distance education alumni cohort of the University of Zambia. Multidisciplinary Journal of Language and Social Sciences Education, 2020.
39. Marces IEE, Aling LB, Maravilla JSM. Comparative analysis of curriculum exits path of first and second batches of shs graduates: Year 2 initial inputs to localized policy guidelines on shs programs and national certificate trainings. EPRA International Journal of Multidisciplinary Research (IJMR). 2020; 6(1). Doi: 10.36713/epra2013
40. Masong EL, Barillo RC. Employability of Technical Vocational Livelihood Senior High School Student Graduates: A Case Study, 2022. ResearchGate. Retrieved from: https://www.researchgate.net/publication/378254659
41. National Economic Development Authority. Philippine Development Plan 2023–2028. Pasig City: NEDA, 2023. Retrieved from: https://pdp.neda.gov.ph
42. National Economic Development Authority. NEDA insight: Ambisyon Natin 2040. https://www.neda.gov.ph/ambisyon-natin-2040/
43. Orbeta AC, Maropsil P. On the employability of the senior high school graduates: Evidence from the labor force survey. Socioeconomic Research Portal of the Philippines, 2020. Retrieved from: https://serp-p.pids.gov.ph/publication/public/view?slug=on-the-employability-of-thesenior-high-school-graduates-evidence-from-the-labor-force-survey
44. Padios J, Seisa J, Galabo M, Rin M, Domondon J. The four exits of Senior High School: A tracer study in Ozamiz City. International Journal of Research and Innovation in Social Science. 2022; 6(6):1001-1006. Retrieved from: https://rsisinternational.org/journals/ijriss/articles/the-four-exits-of-senior- high-school-a-tracer-study-in-ozamiz-city/
45. Padios A, Lejano R, Gorospe SA, De Asis V. Strand and statehood predictors of senior high school graduates: A tracer study. International Journal of Sciences: Basic and Applied Research (IJSBAR), 2021. Retrieved from: https://www.researchgate.net/publication/348620420_St

rand_and_Statehood_Predictors_
of_Senior_High_School_Graduates_A_Tracer_Study
46. Parker K. What's behind the growing gap between men and women in college completion? Pew Research Center, 2021. https://www.pewresearch.org/fact- 15 tank/2021/11/08/whats-behind-the-growing-gap-between-men-and-women-in collegecompletion/?fbclid=IwAR1uel_4zGuxGbejJq1g 3XuCCMkLRckG19RwEi8_X1x4luDpa aK6r_Qzdr
47. Ramos FG. An evaluation of the technical vocational livelihood track in public senior high schools in the Division of Batangas: Basis for an enhancement program. International Journal of Academic Research in Progressive Education and Development. 2021; 10(2):877-900.
48. Reyes AM, Santos JP, Cruz LT. Economic challenges and employment outcomes of technical-vocational agricultural graduates in the Philippines. Journal of Vocational Education and Training. 2019; 71(3):345-362.
49. Salonen A, Kärkkäinen S, Keinonen T. Career-related instruction promoting students career awareness and interest towards science learning. Chemistry Education Research and Practice. 2018; 19(2):474-483.
50. Shefiu R. Technical vocational education and training (TVET) as the panacea to solving Nigeria's youth unemployment problem. Open Journal of Social Sciences. 2019; 11:1-16.
51. Seameo Innotech. Future-ready learners: A guide to learning transitions in Southeast Asia. Southeast Asian Ministers of Education Organization, 2018.
52. Torres RM. Employment and credentialing outcomes of senior high school graduates in the technical-vocational track. Journal of Vocational Education Research. 2021; 14(3):60-75.
53. Unesco Institute of Statistics. Youth/adult educational attainment rates by age group and level of education, 2022. http://uis.unesco.org/en/glossary-term/youthadult-educationalattainment-rates-age-group-and-level-education
54. Villacorta Jr FC, Arnado AA. Competencies, Instructional Skills, and Challenges of Teachers in Implementing the Technical-Vocational and Livelihood Senior High School Track. International Journal of Membrane Science and Technology. 2023; 10(2):653-678. Doi: https://doi.org/10.15379/ijmst.v10i2.1304
55. Woya A. Employability among Statistics Graduates: Graduates Attributes, Competence and Quality of Education. Education Research International. 2019; 7. Doi: https:// doi.org/10.1155/2019/7285491
56. Yang A. Over 2M students benefitted from free tertiary education law. The Philippine Star, 2021. Retrieved from: https://www.philstar.com/headlines/2022/05/31/2185073/ched-over-2m-studentsbenefitted-free-tertiary-education-law