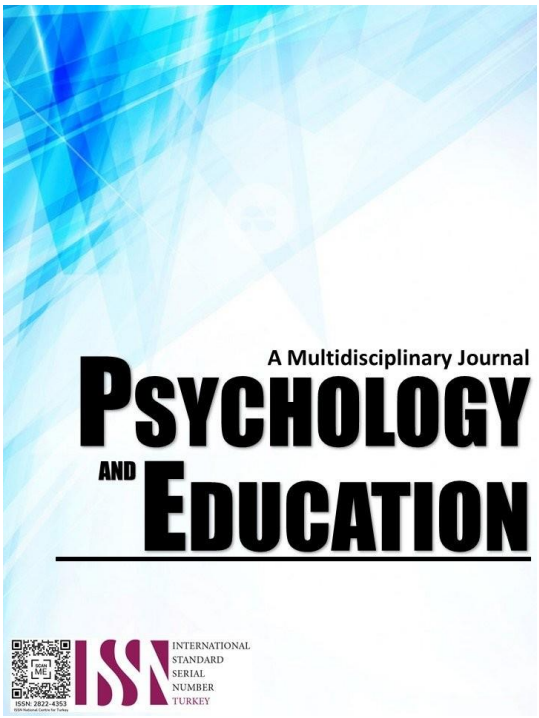
ASSESSING THE INFLUENCE OF THE TECHNICAL VOCATIONAL LIVELIHOOD TRACK (TVL) PROGRAM ON STUDENT ACADEMIC SUCCESS, CAREER OPPORTUNITIES, AND VOCATIONAL COMPETENCY



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 41
Issue 4
Pages: 494-515
Document ID: 2025PEMJ3973
DOI: 10.70838/pemj.410407
Manuscript Accepted: 05-29-2025

Psych Educ, 2025, **41**(4): 494-515, Document ID:2025PEMJ3973, doi:10.70838/pemj.410407, ISSN 2822-4353

Research Article

Assessing the Influence of the Technical Vocational Livelihood Track (TVL) Program on Student Academic Success, Career Opportunities, and Vocational Competency

Elvin L. Valerio,* Abraham S. Accad
For affiliations and correspondence, see the last page.

Abstract

This study utilized a quasi-experimental research design to examine the effects of the TVL track programs on student outcomes. Data were gathered through a survey questionnaire, commonly referred to as a tracer study or graduate survey, targeting TVL graduates from the 2021–2022 to 2023–2024 batches, along with input from teachers, school administrators, and stakeholders (Schomburg, 2016). Participants included BNHS teachers, stakeholders, and partners such as business owners, PTA members, and SGC officers who assumed various roles in student training and employment. This study examined the demographic distribution, specialization preferences, and perceived effectiveness of the Technical-Vocational-Livelihood (TVL) track among graduates and key stakeholders, including educators, industry partners, and community representatives, 103 graduates participated, predominantly from the 2023–2024 academic year. While a broad age range was represented, many respondents opted not to disclose their age, highlighting the sensitivity of such data. Gender patterns were evident in specialization choices, with males favoring Automotive and Carpentry and females gravitating toward Cookery and Agricultural Crop Production. Among Stakeholders, Barangay Officials formed the majority group, followed by Industry partners. Participation from higher-level administrators was minimal. Cookery emerged as the most selected specialization, while fields like Garments and Beauty/Nail Care saw the least interest. Employment and further study trends were most prominent among recent graduates, with over half of the respondents continuing their education. TVL-related subjects were perceived as more aligned with students' career goals than core academic subjects. The track received favorable evaluations and a strong emphasis on the role of teachers and administrators. Stakeholder involvement was also recognized as essential, reflecting external support's impact on student success. Findings indicate a significant relationship between high school subject exposure and student outcomes, affirming the TVL program's contribution to academic performance, career readiness, and skills development.

Keywords: *career readiness, employment, skills development, TVL program*

Introduction

Tracing the performance of graduates in academic, career, and vocational outcomes presents significant challenges globally. One major hurdle is the lack of standardized data collection and reporting systems across countries. This makes it difficult to compare and analyze graduate outcomes effectively. Furthermore, the rapid pace of technological change and evolving job markets create a dynamic environment where skills and knowledge quickly become outdated. Skills rapidly become obsolete due to technological advancements and changing job expectations (Mendoza, 2021). This makes it challenging to track the long-term impact of education on career success.

Robust graduate tracing systems are paramount in today's globalized and competitive job market. Effective tracking mechanisms can provide valuable insights into the effectiveness of education systems, identify areas for improvement, and inform policy decisions. These systems can also help graduates navigate their career paths by providing information on job opportunities, skills development, and further education options. Focusing on the TVL track in the Philippines, this research aims to contribute to the global understanding of graduate outcomes and develop more effective and relevant education systems. This research delves into the impact of Technical-Vocational-Livelihood (TVL) track programs on students' academic, career, and vocational outcomes.

The study focuses on the Philippine education system, where the TVL track has become a key component of the K-12 curriculum. The K-12 program, introduced in 2013, aimed to enhance the Philippines' education system by adding two years to Senior High School (SHS). This expansion allows students to choose from three tracks: Academic, Technical-Vocational-Livelihood, and Sports and Arts. The TVL track, in particular, equips students with practical skills and knowledge that prepare them for immediate employment, entrepreneurship, or further technical education. The study's primary objective is to assess the effectiveness of TVL track programs in shaping student development. It can examine the impact on academic achievements, career readiness, and vocational competencies, providing insights into the role of TVL education in preparing students for the future.

The TVL track is designed to equip students with practical skills and knowledge that prepare them for immediate employment, entrepreneurship, or further technical education. It helps build students' confidence in hands-on practical work and their abilities to plan and create a project to generate income. This study explores the multifaceted impacts of TVL track programs on students' academic performance, career trajectories, and vocational outcomes. It provides students with options in choosing a career and acquiring practical skills for future livelihood and outcomes. Students' academic and professional outcomes are greatly impacted by the TVL track (Santos, 2022).

Furthermore, the research traced the progress of TVL graduates after graduation, focusing on their educational pursuits and career

development. It explored the employability of academic and technical skills in various job settings, particularly for those who enter the workforce directly.

The study also investigated the role of community contributions and stakeholder involvement in supporting student outcomes. This research is crucial for understanding the effectiveness of the TVL track in the Philippine education system. The findings provide valuable insights for policymakers, educators, and stakeholders seeking to improve the quality and relevance of vocational education and prepare students for success in the 21st-century workforce. Vocational education must evolve to meet 21st-century demands (Del Rosario, 2021).

Research Questions

The study determined the impact analysis of TVL track programs on the academic, career, and vocational outcomes of Bambad National High School students. It answered the following questions:

1. What is the profile of the teachers, administrators, stakeholders, and industry partners in terms of:
    1.1. age; and
    1.2. position?
2. What is the demographic profile of the graduate respondents in terms of:
    2.1. age;
    2.2. year graduated;
    2.3. gender; and
    2.4. specialization?
3. What is the post-graduation status of graduates as to:
    3.1. employment status; and
    3.2. career path to college/TESDA?
4. Which of the disciplines in high school do graduates see as more relevant to the TVL program?
5. What is the level of influence of TVL programs on students in terms of:
    5.1. academic success outcome;
    5.2. career opportunity outcome; and
    5.3. vocational competency outcome?
6. What is the level of issues and concerns on TVL program as perceived by the teachers and administrators based on:
    6.1. program method;
    6.2. curriculum;
    6.3. facilities;
    6.4. partnership; and
    6.5. institutional support?
7. What is the level of issues and concerns on TVL program as perceived by the stakeholders and industry partners based on:
    7.1. economic labor;
    7.2. government policies;
    7.3. community involvement; and
    7.4. external factor?
8. Is there a significant influence between the graduates' status and the TVL Program?
9. Is there a significant relationship between the most relevant disciplines and the influence of the TVL program?

Literature Review

In every country, the government exerts nearly total control over the education system, establishing policies and directing its course. Additionally, the government fully finances national schools, resulting in a centralized education system. This centralization brings about bureaucratization, which has certain advantages, such as quicker decision-making. However, it also has drawbacks, including promoting passivity and hindering innovation and creativity (Tie, 2012).

In Asian countries, schooling typically follows a 6-3-2-2 format, where children begin school at seven. Primary education lasts six years, followed by three years of lower secondary, two years of upper secondary, and two years of pre-university. While primary education is free and mandatory, kindergarten is not compulsory, as seen in Japan (Tie, 2012).

This Asian study on Education for Sustainable Development (ESD) found that principals identified four primary challenges: fostering a positive and encouraging attitude, gaining ESD knowledge, developing systems thinking, and adapting the curriculum. School leaders must address these challenges by identifying best practices, building supportive systems, and seeking innovative partnerships to effectively implement ESD in their schools (Abidin et al., 2023).

Despite their differences in political systems, ideologies, historical backgrounds, development priorities, and educational structures, the countries of the Association of Southeast Asian Nations (ASEAN) share a common vision for an ASEAN community. Education

is central to the development and enhancement of ASEAN's competitiveness. The ASEAN Charter, launched in 2007, highlights the strategic importance of closer cooperation among member countries in education and human resource development. The vital role of education in promoting social and economic development and building a strong ASEAN community is widely recognized and affirmed in various high-level policy dialogues and documents. One significant regional initiative is the move towards a shared regional qualifications framework to promote the recognition of qualifications and quality assurance in education.

ASEAN+6, which includes Australia, China, India, Japan, New Zealand, and the Republic of Korea, in addition to ASEAN countries, is a regional cooperation framework aimed at accelerating economic growth in East Asia and promoting cooperation in areas crucial to this growth. This cooperation benefits not only its members but also other countries in the Asia–Pacific region. Examining the education systems in ASEAN+6 countries reveals a mix of generally high-performing systems (e.g., Australia, Japan, the Republic of Korea, Singapore) and systems needing substantial improvement (e.g., Cambodia, Lao PDR, Myanmar). Comparative analysis helps understand why one country's education system performs better than another's (Hwang, 2014).

In the Philippines, basic education is mandatory and includes kindergarten, elementary (grades 1–6), junior high school (grades 7–10), and senior high school (grades 11–12). The educational system is overseen by three government agencies: the Department of Education (DepEd) for basic education, the Commission on Higher Education (CHED) for higher education, and the Technical Education and Skills Development Authority (TESDA) for technical and vocational training. While the national government finances public education, private schools can design curricula within legal guidelines. Implementing the K-12 Program in the Philippine Curriculum of Basic Education was the key to the growth of our country (Abueva, 2019).

The revised system divides secondary education into junior high school (the initial four years of the former K-10 system) and senior high school (grades 11 and 12). Senior high school provides specialized upper secondary education, allowing students to select tracks based on their interests and abilities. The chosen career track determines the subjects students can study in grades 11 and 12. As a result, the college general education curriculum now requires fewer units, with some subjects integrated into the basic education curriculum. According to Abraham et al. (2022), education is a powerful tool to improve and change one's life.

The current basic education structure in the Philippines, implemented on April 24, 2012, is part of the K-12 program, which spanned from May 20, 2008, to June 5, 2017. This system includes compulsory kindergarten and twelve years of primary and secondary education. Students can also pursue higher education to obtain a baccalaureate degree.

Methodology

Research Design

The study employed a quasi-experimental design, focusing on analyzing the impact of TVL track programs on student outcomes. The study used a survey questionnaire, often called a tracer study or graduate survey, to collect data from TVL graduates, teachers, administrators, and stakeholders (Schomburg, 2016). The survey questionnaire was divided into three categories: Category 1 included graduates from the batches of 2021-2022, 2022-2023, and 2023-2024; Category 2 encompassed TVL teachers and administrators; and Category 3 involved stakeholders and business/industry partners. The survey was completed both online and in person. While the study aims to examine cause-and-effect relationships, it focuses on students at Bambad National High School, indicating that participants were not randomly assigned to the TVL track or a control group, a key characteristic of true experiments.

The study mentioned comparing career outcomes of TVL graduates to graduates of other tracks at the same school, implying the use of a comparison group, though not a randomly assigned one. The study also considered controlling for other factors influencing student outcomes, such as socioeconomic background, prior academic performance, or personal aspirations. Overall, the focus on impact, comparison group use, and the potential for data collection over time suggests a quasi-experimental design. The study's limitations, such as the lack of random assignment, should be acknowledged in the analysis and interpretation of the results.

Respondents

The researcher considered graduates from the TVL track programs at Bambad National High School, specifically from the Industrial Arts, Agri-Fishery Arts, Information and Communication Technology, and Home Economics strands. These graduates belong to the school years 2021-2022, 2022-2023, and 2023-2024, covering various specializations within the four strands.

The study expects a positive response rate from the respondents to ensure its success. Data sources were derived from these four strands. The responses of BNHS teachers, stakeholders, and partners (business owners, PTA, and SGC officers) who claimed various responsibilities in students' training and employment were included in the data gathering. The study used a sample of 100-150 respondents, including teachers, administrators, stakeholders, and industry partners.

Instrument

This study employed survey questionnaires to identify the extent to which students' acquired skills from BNHS align with their current pursuits. The questionnaire aims to classify the current status of the TVL Track program and track the graduates' employment, college enrollment, or unemployment status. The goal is to trace the graduates' current livelihood pursuits and how they apply the knowledge

and skills they learned in school.

According to Galton, a questionnaire is a research tool composed of a series of questions designed to collect responses from participants consistently. These questions can be structured using a Likert scale, allowing respondents to indicate their rated preferences. In research, a questionnaire is an organized set of questions intended to collect information from respondents. It gathers quantitative data about subjects' opinions, behaviors, or attributes (Mcleod, 2023).

Procedure

The researcher surveyed all TVL Track students at BNHS Senior High School who graduated in 2021-2022, 2022-2023, and 2023-2024. Attached to the survey questionnaire was a letter informing the students that the study aims to trace the current paths of TVL Track graduates.

The survey also included responses from BNHS stakeholders and industry partners (business owners, PTA, and SGC officers) with various student training and employment responsibilities. These stakeholders were given a separate questionnaire concerning the community and economic impact of the TVL Track program. The researchers requested personal information from the respondents, assuring them of confidentiality. The study was conducted from June to October 2024.

Data collection refers to gathering, estimating, and examining precise information for research using established and approved methods. Researchers use this collected data to test their hypotheses. Data collection was fundamental across academic disciplines, including social sciences and technical subjects. Although the methods may vary by field, the focus on ensuring accurate and reliable data remains constant. Social researchers, for example, employ various techniques, with experiments and semi-experiments crucial due to their ability to provide robust causal inferences (Qadri, 2021). The data gathered were tallied with the help of a statistician, and the data were tabulated for presentation, analysis, and interpretation based on the presented output of the study.

The BNHS graduates, teachers and administrators, stakeholders, and industry partners responded. This group consists of TVL graduates from batch 2021 to batch 2023-2024, School Governing Council (SGC) officers, Parents and Teachers Association (PTA) officers, Barangay Council representatives from nearby barangays, and business owners who have committed through a memorandum of agreement to support students' on-the-job training and employment. They are considered external contributors for students. The survey scoring guide was adopted from Bumaras's study (2013).

Data Analysis

Statistical tools were applied to systematically collect and categorize data, allowing for the combination of results, calculation of rates, and detailed analysis. Collect data from categories of students, teachers and administrators, stakeholders, and industry partners. Results can be presented in quantitative forms. Conducting a study with statistical methods involves planning, designing, data collection, analysis, interpretation, and reporting findings. Statistical anal transforms raw numbers into meaningful insights, effectively bringing otherwise lifeless data to life (Ali & Bhaskar, 2016).

Descriptive statistics was used to summarize and present data. They provide a quick overview of students' academic scores, employment rates, and vocational skills, allowing for an understanding of overall trends in the data. This type of statistical analysis focuses on explaining and detailing academic, career, and vocational outcomes for students. Descriptive statistics help characterize a data set by concisely summarizing its samples and measurements concisely. The most used forms include measures of central tendency such as the mean, median, and mode, which are fundamental at various levels of math and statistics for defining and describing datasets (Hayes, 2024).

ANOVA is a statistical method used to evaluate mean differences among three or more groups. It helped identify whether observed differences result from random chance or represent significant variations. This method allows simultaneous comparisons across multiple groups to determine meaningful distinctions (Kenton, 2024). It also included the analysis of Variance (ANOVA) between the status of the graduates and the influence of the TVL Program across three key indicators: academic, career, and vocational outcomes

The Pearson correlation coefficient is a statistical measure that describes the relationship between two quantitative variables. As a descriptive statistic, it summarizes data characteristics by indicating the strength and direction of a linear relationship. The coefficient, denoted as r, ranges from -1 to 1, where values closer to either extreme indicate stronger correlations. It was the most commonly used method for assessing linear correlations (Turney, 2022). This was used in computing the correlations between the most relevant high school disciplines, the influence of the TVL program, and the influence of the Technical-Vocational-Livelihood (TVL) Program on three key outcomes: Academic Success, Career Opportunities, and Vocational Competency

Ethical Considerations

By giving students' interests first priority, this study makes sure that the curriculum improves their abilities, preparedness for the workforce, and general growth. Evaluations must be objective, devoid of prejudice, and inclusive of a range of backgrounds, skills, and goals. Results ought to be supported by trustworthy data, presented in an understandable manner, and not altered for institutional or personal benefit. The goal of data collecting and the intended use of the respondents' information should be explained to them.

Care should be taken while handling personal information and responses to preserve privacy and prevent unwanted disclosure. To guarantee that students are genuinely equipped for professional options, industry partners, stakeholders, educators, and administrators should take into account the demands of the real world of business while responding. Constructive criticism avoids unfavorable outcomes like discouraging or unfairly categorizing responders. Constructive criticism avoids unfavorable outcomes like discouraging or unfairly categorizing responders. Program improvements brought about by ethical assessment should guarantee that students obtain high-quality instruction and career training.

Results and Discussion

This section analyzes and interprets data derived from statistical procedures to examine students' academic, career, and vocational outcomes. It also evaluates responses from teachers, administrators, stakeholders, and industry partners.

The study explores the tracer study results and investigation of the TVL track program at Bambad National High School, focusing on students' academic, career, and vocational achievements after graduation. It aims to determine learners' career paths and assess the program's impact on those seeking employment or pursuing further education.

Additionally, this study analyzes the influence of the TVL track program on current job market demands based on feedback from industry partners and stakeholders. Key aspects include data on economic labor trends, government policies, community involvement, and external perceptions, all crucial to understanding the program's broader impact.

Profile of teachers, administrators, stakeholders and industry partners

This section will present the respondents' profiles based on their age and job position.

Table 1. *Profile of Teachers and Administrators in terms of Age.*

Age	*f*	*%*
25-32	2	8.00
33-39	2	8.00
40-46	3	12.00
47-53	4	16.00
54-62	4	16.00
No responses	10	40.00
Total	25	100.00

Based on the data presented in Table 1, the age profile of teachers and administrators reveals a varied distribution across different age groups. Of the 25 respondents, 8.00% fall within the age brackets of 25-32 and 33-39, respectively, indicating a relatively small proportion of younger professionals in the sample.

Meanwhile, 12.00% of the respondents are aged 40-46, representing moderately in the middle-age range. Additionally, the highest percentages among those who disclosed their age are found in the 47-53 and 54-62 age brackets, constituting 16.00% of the respondents. This suggests that many respondents are seasoned professionals with potentially extensive experience in the education sector.

However, it is noteworthy that a substantial portion of the respondents, comprising 40.00% of the total, did not provide their age. This non-response rate may impact the comprehensiveness of the demographic analysis, as it limits the understanding of the overall age distribution.

The data indicates that while younger and more experienced educators and administrators are represented, the high rate of missing age data suggests improved response collection strategies in future surveys to ensure complete demographic profiling. This information is crucial as it can provide insights into the generational composition of school personnel, which may influence perspectives on educational management and policy implementation (Creswell, 2014).

Table 2. *Profile of Teachers and Administrators in terms of Position*

Position.	*f*	*%*
Teacher I	5	20.00
Teacher II	4	16.00
Teacher III	6	24.00
Master Teacher I	2	8.00
Master Teacher II	4	16.00
Principal I	1	4.00
No responses	3	12.00
Total	25	100.00

Based on the data presented in Table 2, the profile of respondents from teachers and administrators according to their position reflects a balanced distribution across different teaching and leadership roles. Among the 25 respondents, the largest group is Teacher III, comprising 24.00% (6 respondents), indicating a strong representation of experienced classroom teachers at a higher rank. Following closely are Teacher I respondents, accounting for 20.00% (5 respondents), and Teacher II and Master Teacher II, representing 16.00%

(4 respondents each). These figures suggest a fair distribution between entry-level and more experienced teaching positions.

Additionally, 8.00% (2 respondents) are Master Teacher I, while only one respondent, or 4.00%, holds the position of Principal I. This minimal representation of school heads or administrators may reflect the small number of such positions within the population or a lower response rate from those in administrative roles. It is also important to note that 12.00% (3 respondents) did not disclose their positions, which may slightly affect the comprehensiveness of the position-based analysis.

The distribution indicates strong participation from classroom teachers across various levels, with fewer responses from administrative positions. Understanding the representation by position is crucial as it may influence perspectives on school management practices, instructional leadership, and policy implementation (Creswell, 2014). This data also highlights the importance of ensuring that all role groups are adequately represented in future studies to capture a more comprehensive view of the school system dynamics.

Table 3. *Profile of Stakeholders and Industry Partners in terms of Age*

Age	*f*	*%*
25-40	3	11.50
41-55	3	11.50
56-70	4	15.40
No responses	16	61.50
Total	26	100.00

The data presented in Table 3 shows the age profile of stakeholders and industry partners. Out of the 26 total respondents, a significant portion, 16 respondents, or 61.50%, chose not to disclose their age. This substantial number of non-responses affects the overall representativeness of the age data and indicates a potential gap in the demographic information collected.

Among those who provided their age, the largest group falls within the 56-70 age bracket, accounting for four respondents or 15.40%. This suggests that a notable portion of stakeholders and industry partners involved in the study are older adults, who may bring significant experience and insight into school operations and partnerships. Additionally, there are three respondents in the 25-40 and 41-55 age groups, representing 11.50% respectively. These figures indicate participation across different age groups, although the numbers are relatively small.

The data suggests that while there is some diversity in the ages of stakeholders and industry partners, the high non-disclosure rate limits a comprehensive understanding of the demographic distribution. It is essential in future studies to encourage more complete responses to ensure accurate profiling, as age can influence perspectives, decision-making processes, and engagement levels in educational partnerships (Fraenkel & Wallen, 2012). Addressing this gap will provide a more accurate demographic profile and strengthen the validity of the study's findings.

Table 4. *Profile of Stakeholders and Industry Partners in terms of Position*

Position	*f*	*%*
PTA/SGC Officer	1	3.80
Barangay Official	14	53.90
Industry Partner	9	34.60
No response	2	7.70
Total	26	100.00

The data presented in Table 4 illustrates the profile of stakeholders and industry partners based on their positions. Most of the 26 respondents, comprising 14 individuals or 53.90%, are Barangay Officials. This suggests a strong representation from local government units in supporting and engaging with the schools, which is vital for implementing community-based programs and ensuring alignment with local development goals.

Industry Partners comprise the second largest group, with nine respondents accounting for 34.60% of the sample. Their involvement highlights the schools' efforts to establish linkages with the private sector, which can potentially enhance educational resources, provide student opportunities, and support school programs through partnerships and corporate social responsibility initiatives.

Meanwhile, only one respondent (3.80%) is identified as a PTA/SGC Officer. This relatively low participation from the parent-teacher and school governing council representatives may indicate a gap in parental or guardian engagement at the decision-making level, a critical component in fostering inclusive school governance (DepEd Order No. 83, s. 2012).

Lastly, two respondents (7.70%) did not disclose their positions. While this is a small portion, it highlights the importance of ensuring full participation and accurate reporting in gathering stakeholder data to enhance the reliability of the study findings (Creswell, 2014).

Overall, the data emphasizes the significant role of Barangay Officials and Industry Partners in educational support and school operations. Strengthening the participation of PTA/SGC Officers could further enrich stakeholder engagement and collaborative governance in integrated schools.

Profile of Graduate Respondents.

This section presents the demographic profile of the graduate respondents in terms of age, year graduated, gender and specialization.

Table 5. *Demographic Profile of the Graduate Respondents in terms of Age*

Age	*f*	*%*
17 -18	24	23.30
19 – 20	40	38.80
21 - 22	23	22.30
23 - 25	6	5.80
No age response	10	9.70
Total	103	100.00

Based on Table 5, the demographic profile of the graduate respondents in terms of age reveals that the majority fall within the 19-20-year-old age group, accounting for 40 respondents or 38.80% of the total. This is followed by the 17-18 age group, with 24 respondents or 23.30%. Respondents aged 21-22 comprise 22.30% of the population, representing 23 individuals. Meanwhile, the 23-25 age bracket accounts for 5.80% or six respondents. Additionally, 10 respondents, or 9.70%, did not indicate their age. These results suggest that most graduate respondents are relatively young, with a significant concentration between 19 and 22 years old. This age distribution may reflect the typical age of graduates at the time of survey administration. Most graduate responders are comparatively young with a notable concentration between 19 and 22 (Reyes, 2021).

Table 6. *Demographic Profile of the Graduate Respondents in terms of Year Graduated.*

Covered Year	*f*	*%*
2021 - 2022	25	24.27
2022 - 2023	26	25.24
2023 - 2024	52	50.49
Total	103	100.00

Table 6 presents the demographic profile of the graduate respondents in terms of the year they graduated. The data shows that the largest proportion of respondents graduated in the academic year 2023-2024, with 52 out of 103 respondents accounting for 50.49% of the total. This indicates that more than half of the graduates surveyed are from the most recent batch. The academic year 2021-2022 contributed 25 respondents, 24.27% of the sample, while 26 respondents graduated in 2022-2023, representing 25.24%.

This distribution suggests a higher response rate among recent graduates, which may be attributed to increased accessibility and availability during data gathering. It emphasizes the importance of gathering perspectives from the most recent graduates, as they can provide more current insights into their educational experiences and post-graduation outcomes. Recent research underscores that graduates' experiences and views are closely linked to educational attainment, often leading to improved career prospects (Torpey, 2022).

The relatively balanced distribution between the earlier two cohorts demonstrates an ongoing engagement with past graduates. However, it is clear that the most recent batch forms most of the respondents.

Table 7. *Profile of the Respondents in terms of Gender per School Year*

Specialization	*2021-2022*		*2022-2023*		*2023-2024*		*TOTAL*
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	
Carpentry	4	0	4	1	7	0	16
Automotive	4	0	4	0	7	0	15
Electrical Installation and Maintenance	5	0	1	2	7	0	15
Agricultural Crop Production	3	0	2	3	1	11	20
Computer System Servicing	3	0	2	0	2	4	11
Cookery	0	4	2	2	2	11	21
Garments	0	1	0	1	0	0	2
Beauty/Nail care	0	1	0	2	0	0	3
	19	6	15	11	26	26	
Grand Total per SY	25		26		52		103

Table 7 presents the profile of respondents in terms of gender per school year across various specializations. The data reflects 103 respondents from three school years: 2021-2022, 2022-2023, and 2023-2024. Across the three academic years, the Carpentry specialization had 16 respondents, predominantly male (15 males and 1 female). Most respondents came from the 2023-2024 batch, with seven male students.

In Automotive, there were 15 respondents in total, all of whom were male. The largest group was from 2023-2024, with seven respondents.

For Electrical Installation and Maintenance, there were 15 respondents (13 males and 2 females), seven students from 2023-2024, and higher participation in previous years. The Agricultural Crop Production specialization had 20 respondents, with a notable increase in female participation in 2023-2024 (11 females and 1 male). This specialization shows the highest female representation compared to others.

In Computer System Servicing, there were 11 respondents, mostly males, except for four females from the 2023-2024 batch. The gender distribution here shows a shift toward inclusivity in the latest batch. Cookery stands out as the specialization with the highest female participation overall. Out of 21 respondents, four were males and 17 were females, with an increase from 4 females in 2021-2022 to 11 females in 2023-2024. This specialization shows a consistent trend of being female-dominated.

Garments and Beauty/Nail Care specializations had minimal participation. Garments had just one female respondent in 2021-2022, 1 female in 2022-2023, while Beauty/Nail Care had one female respondent in 2021-2022, 2 females in 2022-2023, across all years. Overall, the data highlights a gendered distribution of specializations. Male respondents dominate in technical-vocational fields such as Automotive, Electrical Installation and Maintenance, and Carpentry. On the other hand, female respondents are more represented in fields such as Cookery and Agricultural Crop Production, particularly in the latest school year.

The 2023-2024 school year had the highest total number of respondents (52), showing a consistent increase in participation compared to the previous years. Additionally, the total gender count is fairly balanced, with 50 males and 53 females across all years, indicating a gradual increase in female participation in various specializations. Female participation in various specializations has steadily risen (Lopez, 2020).

Table 8. *Profile of the Respondents in terms of Specialization from SY 2021-2024.*

Specialization	*2021-2022*	*2022-2023*	*2023-2024*	*Total*
Carpentry	4	5	7	16
Automotive	4	4	7	15
Electrical Installation and Maintenance	5	3	7	15
Agricultural Crops Production	3	5	12	20
Computer System Servicing	3	2	6	11
Cookery	4	4	13	21
Garments	1	1	0	2
Beauty/Nail Care	1	2	0	3
Total Respondents	25	26	52	103

The data presented in Table 8 provides an overview of the distribution of graduate respondents according to their specialization areas over three consecutive school years. The study covered 103 respondents.

Among the various specializations, Cookery emerged as the most enrolled course, with 21 respondents accounting for a significant portion of the population. Notably, this specialization showed a sharp increase in enrollment in the 2023-2024 school year, with 13 graduates, compared to 4 in 2021-2022 and 4 in 2022-2023. This trend indicates a growing interest in the Cookery program over time.

The following closely follows Agricultural Crops Production, recording 20 respondents across three school years. The enrollment is still consistent, with 3 in 2021-2022, 5 in 2022-2023, and 12 in 2023-2024. This steady pattern suggests sustained demand and interest in this technical field. This could imply strengthening programs or increasing employment opportunities in industry, encouraging more students to take this course.

Similarly, the third-ranked Carpentry specialization had 16 graduates: 4 in 2021-2022, 5 in 2022-2023, and 7 in 2023-2024, indicating moderate yet increasing participation in this vocational field. The Automotive specialization accumulated 15 graduates, with a relatively balanced distribution: 4 in 2021-2022, 4 in 2022-2023, and 7 in 2023-2024.

Meanwhile, Computer System Servicing had 11 graduates, with an increase in 2023-2024, where six students completed the program. However, there were two graduates in 2022-2023, suggesting a possible decrease in enrollment or completion rates.

Lastly, the Garments and Beauty/Nail Care specializations had minimal representation. Both had one graduate in 2021-2022, and Beauty/Nail Care had 2 in 2022-2023. There were no additional respondents throughout the three school years. This low participation may reflect limited program offerings, lesser student interest, or market demand in these fields.

The table highlights a positive trend in technical-vocational education, with certain specializations, particularly cooking, Agricultural Crop Production, and Carpentry, showing increased enrollment and graduation rates. According to the World Bank, UNESCO, and ILO (2023), these patterns can guide school leaders and policymakers in identifying programs best aligned with future labor market needs and student preferences. TVET systems in many low and middle-income countries frequently fail to meet the required skills demanded by the labor market.

Post graduation status of graduates

This refers to the post-graduation outcomes of graduates, including their employment status and whether they pursue a career or

continue their education in college or through TESDA programs.

Table 9. *Status of the Graduates based on Employment and Career Path of Batch 2021-2022.*

Specialization	*Employed*	*Un-Employed*	*Enroll in College/TESDA*
Carpentry	2	0	2
Automotive	1	0	3
Electrical, Installation and Maintenance	0	2	3
Agricultural Crops Production	2	0	1
Computer System Servicing	0	1	2
Cookery	2	0	2
Garments	0	0	1
Beauty/Nail care	0	0	1
Total	7	3	15

The data presented in Table 9 highlights the employment status and educational pursuits of the TVL graduates from the batch 2021–2022, offering insights into their career trajectories. The table indicates that out of the graduates, seven (7) individuals are currently employed.

Notably, the specializations with the highest immediate employment outcomes include Carpentry (2), Agricultural crop production (2), Cookery (2), and Automotive (1). This finding demonstrates the relevance and applicability of these skills in the local labor market, which aligns with the findings of TESDA (2021), stating that graduates from technical-vocational programs in high-demand sectors such as construction and culinary services often experience better employment opportunities.

Conversely, three (3) graduates are unemployed—two specialized in Electrical Installation and Maintenance, and one in Computer System Servicing. Despite possessing technical skills, these graduates may face limited job opportunities within their localities or skill mismatches (Asian Development Bank, 2020). These factors can contribute to temporary unemployment or underemployment among TVL graduates.

Additionally, a significant number of graduates—fifteen (15) in total—have opted to enroll in further education through college or TESDA programs. Among them, the Automotive specialization recorded the highest number (3) enrolling in further studies, followed by Electrical Installation and Maintenance (3), Carpentry (2), Computer System Servicing (2), Cookery (2), Garments (1), and Beauty/Nail Care (1). This trend reflects the graduates' recognition of the need to enhance their competencies and qualifications to secure better employment prospects, consistent with the lifelong learning theory by UNESCO (2016). Higher education or additional certifications can expand job opportunities, particularly in industries requiring advanced skills or formal qualifications.

Thus, the data suggests that while some TVL graduates successfully transition into the workforce, a larger segment seeks further education and training to improve employability and career advancement. This pattern supports the view that technical-vocational education is a direct path to employment and a stepping stone for higher learning opportunities (ILO, 2021). Continuous program development and stronger linkages with industry partners could further enhance the employment rates of future TVL graduates

Table 10. *Status of the Graduates based on Employment and Career Path of Batch 2022-2023.*

Specialization	*Employed*	*Un-Employed*	*Enroll in College/TESDA*
Carpentry	3	2	0
Automotive	0	1	3
Electrical, Installation and Maintenance	0	0	3
Agricultural Crops Production	0	2	3
Computer System Servicing	0	0	2
Cookery	1	1	2
Garments	0	0	1
Beauty/Nail care	1	0	1
Total	5	6	15

Table 10 presents the employment status and career paths of TVL graduates from the batch 2022–2023, providing valuable insights into their post-graduation outcomes. The data shows that five (5) graduates are currently employed, six (6) are unemployed, and fifteen (15) have chosen to enroll in further education or training through college or TESDA programs. This distribution highlights a continuing trend of many TVL graduates pursuing further education to enhance their skills and employability in the labor market (TESDA, 2021).

Carpentry graduates recorded the highest employment figure, with three (3) individuals securing jobs, despite two others being unemployed. This suggests that while carpentry remains a viable skill with demand in the labor market, challenges such as regional job availability or competition may impact full employment among graduates (ILO, 2021). Interestingly, none of the graduates in Carpentry pursued further studies, which may indicate confidence in the immediate employability of their skills or a preference for direct entry into the workforce.

In contrast, the Automotive specialization shows no recorded employment, with one graduate currently unemployed and three pursuing further studies in college or TESDA programs. This situation could indicate that the majority are prioritizing higher education. It may

also reflect either limited immediate job opportunities in the local automotive industry or a belief that additional qualifications are necessary to enhance their employment prospects (Asian Development Bank, 2020).

The Electrical Installation and Maintenance graduates show no employment or unemployment figures, but all three (3) graduates pursued further studies. This decision could be influenced by the industry's requirements for higher-level certifications or specialized skills, reinforcing the value of continuous learning as emphasized by UNESCO (2016).

Similarly, Agricultural Crops Production shows no immediate employment, with two (2) unemployed graduates and three (3) pursuing further studies. This may reflect regional agricultural challenges or limited market opportunities that push graduates to upgrade their skills or seek alternative career paths (FAO, 2021).

Other specializations, such as Computer System Servicing, Cookery, Garments, and Beauty/Nail Care, have at least one graduate employed or enrolled in further studies. Notably, Cookery has one (1) employed and one (1) unemployed graduate, while two (2) opted for further education. Beauty/Nail Care shows one (1) graduate employed and another pursuing studies, demonstrating the diverse paths available in the personal services industry (TESDA, 2021).

In total, fifteen (15) graduates, the largest group in the cohort, enrolled in college or TESDA programs across different specializations. This reinforces that TVL programs often serve as stepping stones toward higher education and advanced training, enabling graduates to improve their employability and adapt to evolving labor market demands (ILO, 2021).

With these, the 2022–2023 batch data reflects the opportunities and challenges TVL graduates face. While some can enter the workforce directly, many choose to further their education to enhance their qualifications. This underscores the importance of strengthening TVL programs, providing career guidance, and fostering industry linkages to support better graduate outcomes (UNESCO, 2016; TESDA, 2021).

Table 11. *Status of the Graduates based on Employment and Career Path of Batch 2023-2024.*

Specialization	*Employed*	*Un-Employed*	*Enroll in College/TESDA*
Carpentry	3	2	3
Automotive	2	2	4
Electrical, Installation and Maintenance	2	0	2
Agricultural Crops Production	0	4	5
Computer System Servicing	4	4	3
Cookery	2	3	5
Garments	0	1	0
Beauty/Nail care	0	1	0
Total	13	17	22

Table 11 presents the employment status and career pathways of TVL (Technical-Vocational-Livelihood) graduates from the 2023–2024 batch. The data reveals that 13 graduates are currently employed, 17 are unemployed, and 22 have chosen to pursue further education through college or TESDA programs. This distribution highlights ongoing trends in post-graduation outcomes, emphasizing the opportunities and challenges TVL graduates face in securing employment or advancing their skills (TESDA, 2021).

Among the specializations, Carpentry recorded three (3) graduates employed, two (2) unemployed, and three (3) pursuing further studies. Carpentry continues to be a field with decent employment prospects. However, the presence of unemployed graduates suggests there may be fluctuations in demand or barriers related to job availability in local areas (ILO, 2021).

In the Automotive specialization, two (2) graduates are employed, two (2) remain unemployed, and four (4) have enrolled in college or TESDA. The data implies that while some automotive graduates secure employment, others recognize the need to upskill, possibly due to the rapidly changing technologies in the automotive industry (Asian Development Bank, 2020).

Electrical Installation and Maintenance graduates show promising results, with two (2) employed, none unemployed, and two (2) advancing their education. This indicates that the sector remains in demand, and employers value these technical skills, consistent with findings highlighting the importance of certified electricians in various industries (TESDA, 2021).

On the other hand, Agricultural Crops Production shows zero employment, four (4) unemployed, and five (5) enrolled in further studies. This may reflect the continuing challenges in the agricultural sector, such as mechanization and limited local opportunities, prompting graduates to enhance their skills to find employment elsewhere or in different roles (FAO, 2021).

Computer System Servicing has a balanced representation, with four (4) employed, four (4) unemployed, and three (3) enrolled in further studies. This suggests a mixed outcome: Some graduates successfully enter the ICT sector, while others face challenges in gaining employment, possibly due to competitive requirements or lack of work experience (ILO, 2021).

The Cookery specialization includes two (2) employed people, three (3) unemployed people, and five (5) who have chosen to pursue additional training or education. While the cookery sector offers opportunities in hospitality and tourism, it remains competitive, necessitating continuous learning and specialization (UNESCO, 2016).

Finally, Garments and Beauty/Nail Care have no employed graduates in this batch. Garments have one (1) unemployed and one (1) enrolled in further studies, while Beauty/Nail Care reports one (1) unemployed graduate. These figures may reflect a lack of immediate opportunities in these industries or potential oversaturation in local markets (TESDA, 2021).

The twenty-two (22) graduates have opted to enroll in college or TESDA programs, showing a strong inclination toward further education and skill development. This trend underscores the role of TVL programs as pathways for immediate employment, lifelong learning, and upskilling to meet evolving industry standards (UNESCO, 2016; Asian Development Bank, 2020).

Table 12. *Overall Status of Graduate Students in Terms of Employment and Career Paths.*

Batch	*Employed*	*Un Employed*	*Enrolled in college/TESDA*	*Total*
2021-2022	7	3	15	25
2022-2023	5	6	15	26
2023-2024	13	17	22	52
Total	25	26	52	103

Among all batches, the 2023–2024 group reported the highest number of employed and unemployed respondents, with 13 employed, 17 unemployed, and 22 continuing their education through college or TESDA for further learning.

Notably, the 2021–2022 batch had the fewest respondents in both employment and unemployment categories, with seven employed and three unemployed; however, 15 individuals from this batch pursued further studies. Lastly, the 2022–2023 batch had the lowest number of employed respondents at 5, with six unemployed and 15 continuing their education to enhance their knowledge.

Overall, 25 of the 103 respondents are employed, 26 are unemployed, and 52 are pursuing further studies to succeed in their educational and career goals. The National Center for Education Statistics (2020) emphasizes that continuing education greatly improves a person's ability to reach their academic and career goals.

Relevant High School Discipline to the TVL Program

This section highlights the high school disciplines that are most relevant and have a direct influence on the TVL program.

Table 13. *Respondents' Responses of the Most Relevant High School Discipline to the TVL Program*

Subjects	*f*	*%*
1	44	42.72
2	59	57.28
Total	103	100.00

Legend*: 1-Math, Science, and English;2 TVL Related Subjects*

Table 13 presents the respondents' perceptions of the most relevant high school disciplines that support the TVL (Technical-Vocational-Livelihood) program. Of the 103 respondents, 44 individuals, or 42.72%, identified core academic subjects, specifically Math, Science, and English. Meanwhile, a majority of 59 respondents, or 57.28%, recognized TVL-related subjects as being more directly relevant to their chosen vocational paths.

The data highlights the importance of foundational academic skills and specialized technical knowledge in preparing students to succeed in TVL programs. Core academic subjects like Math, Science, and English are crucial because they enhance the cognitive and communication skills necessary for technical problem-solving, comprehension of technical instructions, and effective workplace communication (UNESCO-UNEVOC, 2018).

Math and Science, for example, equip learners with logical reasoning and analytical thinking, which are essential in technical fields such as engineering, information technology, and electronics (European Centre for the Development of Vocational Training [CEDEFOP], 2020).

On the other hand, the higher percentage of respondents who chose TVL-related subjects underlines the perceived direct applicability of technical skills learned in specialized areas such as Carpentry, Automotive, and Computer System Servicing. These subjects offer hands-on training and experiential learning opportunities that align with workplace demands and industry standards, making them highly valuable to students pursuing employment immediately after high school (TESDA, 2021).

This trend suggests that while core academic disciplines lay the groundwork for developing essential soft skills and cognitive abilities, students tend to value the relevance and practicality of TVL subjects in enhancing their employability and readiness for the labor market.

Integrating academic and technical competencies in TVL curricula is vital to producing well-rounded graduates capable of adapting to various career paths (UNESCO-UNEVOC, 2018; CEDEFOP, 2020).

Influence of TVL Program to Students

This section highlights the impact of the TVL program on academics, career opportunities, and vocational outcomes.

Table 14. *Level of Influence of TVL Program to Students in terms of Academic Success Outcome*

	Statements	*Mean*	*SD*	*Interpretation*
1	I successfully graduated from the TVL program with satisfactory grades.	3.99	1.02	Influenced
2	I am a TVL program graduate equipped with the necessary skills in my chosen field.	3.93	.97	Influenced
3	I am confident in my skills and abilities as a TVL program graduate.	3.91	.97	Influenced
4	I successfully completed my academic subjects without experiencing any failures.	4.08	1.00	Influenced
5	I feel confident in my ability to succeed in all my subjects.	3.85	.86	Influenced
6	I believe that my academic performance has significantly improved since joining the TVL program.	3.98	.92	Influenced
7	I feel that participating in the TVL program has positively impacted my academic performance.	4.08	.01	Influenced
	Section Mean	3.98	.78	Influenced

The data presented in Table 14 highlights the level of influence of the TVL (Technical-Vocational-Livelihood) program on students in terms of academic success outcomes. Among the statements, the highest mean score of 4.08 (sd=1.00) was observed in two areas: "I completed my academic subjects without experiencing any failures" and "I feel that participating in the TVL program has positively impacted my academic performance."

These findings suggest that the TVL program plays a crucial role in equipping students with the competencies necessary to meet academic demands and avoid failures, which is consistent with the findings of Tablatin and Dela Cruz (2020), who emphasized the effectiveness of technical-vocational education in enhancing student performance and engagement.

On the other hand, the lowest mean score of 3.85 (sd = .86) was recorded in the statement, "I feel confident in my ability to succeed in all my subjects." While still falling under the " Influenced" category, this suggests that some students may experience challenges in maintaining self-confidence across all academic areas.

This aligns with the observations of Eviota et al. (2019), who noted that students in TVL tracks sometimes struggle with balancing technical skills and academic subjects.

Overall, the section mean of 3.98 (sd=.78) reflects a strong agreement among respondents that the TVL program has positively influenced their academic success, indicating its effectiveness in supporting students' holistic development and learning outcomes (DepEd, 2017).

Table15. *Level of Influence of TVL Program to students in terms of Career Opportunity Outcome.*

	Statements	*Mean*	*SD*	*Interpretation*
1	I am satisfied with the level of professional development opportunities available to me.	3.83	.92	Influenced
2	I have clear and accessible opportunities for career advancement within my current employment.	3.84	.86	Influenced
3	I am contented and fulfilled with my current job position and responsibilities.	3.65	.93	Influenced
4	My job offers a healthy work-life balance and provides a competitive salary that meets my needs.	3.65	.93	Influenced
5	My current job is directly aligned with the skills and competencies I acquired from the TVL Track Program.	3.68	.95	Influenced
	Section Mean	3.73	.79	Influenced

Based on the data presented in Table 15, the Level of Influence of the TVL Program on students in terms of Career Opportunity Outcomes reveals insightful findings. The highest mean score was observed in the statement, "I have clear and accessible opportunities for career advancement within my current employment," with a mean of 3.84 (sd=.86).

This indicates that graduates generally perceive that the TVL program has enhanced their ability to pursue career growth opportunities, aligning with the findings of De Guzman and Choi (2013), who highlighted that technical-vocational education often leads to increased employability and career mobility.

On the other hand, the lowest mean scores, both at 3.65 (sd=.93), were found in the statements "I am contented and fulfilled with my current job position and responsibilities" and "My job offers a healthy work-life balance and provides a competitive salary that meets my needs."

This suggests that while the program equips students with the necessary skills, there is room for improvement in ensuring job satisfaction and appropriate compensation, a concern echoed by Garcia and de Guzman (2010), who emphasized the need for continuous improvement in job matching and support services for TVL graduates.

The section mean for this dimension is 3.73 (sd=.79), which falls under the interpretation of " Influenced." This overall result suggests that students perceive a positive influence of the TVL program on their career opportunities, consistent with the advocacy of the Technical Education and Skills Development Authority (TESDA, 2021) regarding the role of TVL programs in enhancing employability and career readiness.

Table 16. *Level of Influence of TVL Program to students in terms of Vocational Competency Outcome*

	Statements	*Mean*	*SD*	*Interpretation*
1	I am satisfied with the professional skills and competencies I have acquired through the TVL program.	3.83	.92	Influenced
2	I have received a recognized certificate as evidence of my skills development (e.g., Certificate of Competency or Training Certificate).	3.80	.98	Influenced
3	I am currently engaged in a business or entrepreneurial activity that supplements my primary source of income.	3.63	.93	Influenced
4	I have been awarded a National Certificate (NC I, NC II, or NC III) as proof of my successful skills assessment.	3.62	1.05	Influenced
5	I have received recognition or an award for my skills and business achievements.	3.50	1.01	Influenced
6	The opportunity to improve my skills has been a significant factor in motivating me to succeed both academically and vocationally.	3.97	.81	Influenced
7	The TVL program has enhanced my previous vocational training or work experience, improving my employability and competence in my chosen field.	4.00	.82	Influenced
	Section Mean	3.76	.77	Influenced

Table 16 presents the Level of Influence of the TVL Program on students regarding Vocational Competency Outcomes. The highest mean score of 4.00 (sd=.82) was recorded for the statement, "The TVL program has enhanced my previous vocational training or work experience, improving my employability and competence in my chosen field." This suggests that the respondents strongly believe the program has significantly contributed to their vocational development and employability, aligning with studies highlighting the role of Technical-Vocational Education and Training (TVET) programs in enhancing practical skills and job readiness (UNESCO-UNEVOC, 2018).

On the other hand, the lowest mean score of 3.50 (sd = 1.01) was observed in the statement, "I have received recognition or an award for my skills and business achievements." This indicates that fewer respondents have experienced formal recognition, a known challenge in skill-based education programs, as acknowledgment and certification are crucial in boosting motivation and career progression (Asian Development Bank, 2014).

The section means of 3.76 (SD = .77) suggests a positive perception of the vocational competencies acquired through the TVL program. These results affirm the significance of TVL in equipping students with relevant technical skills and enhancing their career prospects (Tesda, 2020). However, the relatively lower scores concerning formal recognition and certification point to potential areas for program improvement to further strengthen vocational outcomes.

Table 17. *Summary of the Level of Influence of the TVL Program on Students.*

	Indicators	*Mean*	*SD*	*Interpretation*
1	Academic Success Outcome	3.98	.78	Influenced
2	Career Opportunity Outcome	3.73	.79	Influenced
3	Vocational Skills Outcome	3.76	.77	Influenced
	Overall Mean	3.82	.78	Influenced

Table 17 summarizes the overall influence of the TVL (Technical-Vocational-Livelihood) program on students, focusing on three key outcome areas: Academic Success, Career Opportunity, and Vocational Skills. The data reveal that the highest mean score is found in the Academic Success Outcome, with a mean of 3.98 and a standard deviation of 0.78. This suggests that the TVL program has had a significant positive impact on students' academic performance. This outcome aligns with the findings of Alonsabe et al. (2021), who highlighted that TVL tracks can enhance students' engagement and academic achievement through hands-on learning experiences that complement theoretical instruction.

In contrast, the Career Opportunity Outcome obtained the lowest mean score of 3.73 with a standard deviation of 0.79. While still interpreted as "Influenced," this lower score may indicate that, although students recognize improvements in career opportunities, there may be gaps in job placement, career advancement pathways, or alignment between skills learned and industry demand (Asian Development Bank, 2014). This is consistent with the challenges identified by UNESCO-UNEVOC (2018), which stressed the need for stronger linkages between TVET institutions and the labor market to ensure that skills development translates into actual employment opportunities.

The Vocational Skills Outcome achieved a mean of 3.76, showing that students generally agree that the program enhanced their practical and technical competencies. As supported by the findings of TESDA (2020), technical-vocational programs are instrumental in equipping learners with employable skills, which increase their competitiveness in the labor market.

The Overall Mean of 3.82 with a standard deviation of 0.78 reflects an overall positive perception of the TVL program's influence on student outcomes. This suggests that the TVL program successfully addresses its students' educational and employability needs, confirming the essential role of technical-vocational education in promoting inclusive and equitable quality education, as emphasized by the Sustainable Development Goals (SDG 4) (United Nations, 2015).

Issues and concerns on TVL program. as perceived by teachers and administrators.

This section presents the issues and concerns related to the program's methodology, curriculum, facilities, partnerships, and institutional support.

Table 18. *Level of Issues and Concerns of the TVL Program as Perceived by the Teachers and Administrators on Program Method*

	Statements	*Mean*	*SD*	*Interpretation*
1	The teaching methods used in the TVL program are effective.	4.68	0.48	Highly Influenced
2	Interactive methods such as group projects and hands-on activities are frequently used in my classes.	4.52	0.51	Highly Influenced
3	The teaching methods accommodate different learning styles.	4.48	0.51	Highly Influenced
4	Modern technologies (e.g., computers, online tools) are well integrated into the teaching methods.	4.76	0.44	Highly Influenced
	Section Mean	4.61	0.48	Highly Influenced

Table 18 illustrates the level of issues and concerns in the TVL program as perceived by teachers and administrators, specifically regarding program methods. The statement, "The teaching methods used in the TVL program are effective," received a mean score of 4.68 with a standard deviation of 0.48, indicating that these methods are perceived as highly effective for teaching and learning. The lowest-rated statement, "The teaching methods accommodate different learning styles," had a mean score of 4.48 and a standard deviation of 0.51, which, despite being slightly lower, still falls within the " Highly Influenced " interpretation.

The overall section mean of 4.61, with a standard deviation of 0.48, suggests that program methods in the TVL track are generally effective in facilitating learning. Chakravarty, Lundberg, Nikolov, and Zenker (2019) further examined the impact of vocational training programs by analyzing employment and earnings outcomes based on compliance with assignment status. Their findings consistently show strong effects across various measures, reinforcing the program's effectiveness and sustainability in supporting TVL graduates in the labor market.

Table 19. *Level of Issues and Concerns of the TVL Program as Perceived by the Teachers and Administrators on Curriculum*

	Statements	*Mean*	*SD*	*Interpretation*
1	The curriculum is relevant to current industry standards and job market demands.	4.44	0.51	Highly Influenced
2	The curriculum comprehensively covers the necessary skills and knowledge for my field.	4.48	0.71	Highly Influenced
3	The curriculum is updated regularly to reflect new developments in the field.	4.56	0.58	Highly Influenced
4	The curriculum balances theoretical knowledge and practical skills effectively	4.44	0.65	Highly Influenced
	Section Mean	4.48	0.61	Highly Influenced

Table 19 presents the level of issues and concerns in the TVL program as perceived by teachers and administrators, specifically regarding the curriculum. The highest-rated statement, "The curriculum is updated regularly to reflect new developments in the field," received a mean score of 4.56 with a standard deviation of 0.58, indicating its strong approval. Two statements received the same mean score of 4.44 but had different standard deviations: "The curriculum is relevant to current industry standards and job market demands" had a standard deviation of 0.51. In contrast, "The Curriculum effectively balances theoretical knowledge and practical skills " had a standard deviation of 0.65, making it the lowest-rated of the four statements.

Overall, the TVL program's curriculum was effective, with a section mean of 4.48 and a standard deviation of 0.61. These findings suggest that the current curriculum supports student learning and skill development. However, as Lakin et al. (2019) noted, curriculum implementation varies across educational institutions, achieving great success in some while facing challenges in others.

Table 20. *Level of Issues and Concerns of TVL Program as Perceived by the Teachers and Administrators on Facilities*

	Statements	*Mean*	*SD*	*Interpretation*
1	The facilities (e.g., classrooms, labs, workshops) are adequate for my learning needs.	4.20	0.82	Highly Influenced
2	The facilities are well-maintained.	4.48	0.71	Highly Influenced
3	The facilities are accessible for all students, including those with disabilities.	4.32	0.63	Highly Influenced
4	The availability of equipment and materials required for my training is sufficient.	4.16	1.07	Influenced
	Section Mean	4.29	0.81	Highly Influenced

Table 20 presents the issues and concerns regarding the TVL program as perceived by teachers and administrators, specifically focusing on facilities. The statement "The facilities are well-maintained" received the highest rating, with a mean score of 4.48 and a standard deviation of 0.71, indicating strong agreement among respondents. Conversely, the lowest-rated indicator had a mean of 4.16 and a standard deviation of 1.07, reflecting greater response variation. The overall section mean was 4.29, with a standard deviation of 0.81, which is still interpreted as " Highly Influenced." These findings highlight the availability and effectiveness of facilities in the TVL track program within the school.

Facilities play a crucial role in teaching and learning, particularly in developing students' practical skills. According to Agustin and Permana (2020), effective management of educational facilities and infrastructure is essential for creating a conducive learning environment for students, teachers, and school staff. While the facilities for TVL learning are adequate and support student learning,

proper maintenance, and preservation are necessary to sustain their long-term benefits for the school and its learners.

Table 21. *Level of Issues and Concerns of TVL Program as Perceived by the Teachers and Administrators on Partnerships.*

	Statements	*Mean*	*SD*	*Interpretation*
1	The partnerships between my TVL program and industry/business organizations are strong.	4.68	0.48	Highly Influenced
2	I have frequent opportunities for internships or job placements through these partnerships.	4.56	0.51	Highly Influenced
3	The partnerships provide beneficial real-world experience and networking opportunities	4.52	0.65	Highly Influenced
4	Industry partners are involved in curriculum development and program improvement.	4.52	0.59	Highly Influenced
	Section Mean	4.57	0.56	Highly Influenced

Table 21 presents the issues and concerns regarding the TVL program as perceived by teachers and administrators, specifically regarding partnerships. Two statements received the same mean score of 4.52, with standard deviations of 0.59 and 0.65, respectively. While these were ranked the lowest among the choices, they were still interpreted as " Highly Influenced." The highest-rated statement, "The partnerships between my TVL program and industry/business organizations are strong," had a mean score of 4.68 and a standard deviation of 0.48, emphasizing the crucial role of industry collaboration in enhancing students' practical skills. Strong partnerships with industries provide students with valuable exposure to real-world employment settings, making the TVL program more effective in skill development.

According to UNESCO-UNEVOC (2018), strengthening the connection between TVET institutions and the labor market is essential to ensuring that skills development leads to employment opportunities. The overall section mean of 4.57, with a standard deviation of 0.56, further supports the effectiveness of industry partnerships in preparing students for future careers. The UNEVOC Centre (2018) also highlighted that long-term improvements require collaboration among government entities, civil society, and the business sector. Effective partnerships not only enhance learning and program development but also contribute to economic growth within the community.

Table 22. *Level of Issues and Concerns of TVL Program as Perceived by the Teachers and Administrators on Institutional Support*

	Statements	*Mean*	*SD*	*Interpretation*
1	Academic advising and counseling services.	4.24	0.83	Highly Influenced
2	Access to learning resources (e.g., library, online databases):	3.96	0.84	Influenced
3	Availability of financial aid and scholarships.	4.08	0.76	Influenced
4	Quality of vocational training and hands-on experience.	4.24	0.78	Highly Influenced
5	Support for extracurricular activities and student organizations.	4.28	0.84	Highly Influenced
6	Career counseling and job placement services.	4.20	0.82	Highly Influenced
7	Accessibility of faculty and staff for academic and personal support.	4.48	0.82	Highly Influenced
8	Effectiveness of communication from the institution (e.g., announcements, updates):	4.44	0.77	Highly Influenced
9	Availability and quality of mental health services:	4.32	0.69	Highly Influenced
10	Overall satisfaction with the institutional support:	4.24	1.01	Highly Influenced
	Section Mean	4.25	0.82	Highly Influenced

Table 22 presents the issues and concerns regarding institutional support in the TVL program as perceived by teachers and administrators. Among the given indicators, the highest-rated statement, "Accessibility of faculty and staff for academic and personal support," received a mean score of 4.48 with a standard deviation of 0.82. T

his highlights the significance of strong and effective support systems for the program. Conversely, the lowest-rated statement, "Access to learning resources (e.g., library, online databases)," had a mean score of 3.96 with a standard deviation of 0.84, indicating that resource availability remains challenging for institutional support.

According to Krishna (2005), formal institutions play a crucial role in training and skill dissemination, particularly in the informal sector, where various government-led initiatives aim to enhance education and workforce preparedness. The effectiveness of the TVL program may vary depending on the level of institutional support provided. The overall section mean of 4.25, with a standard deviation of 0.82, is interpreted as " Highly Influenced," suggesting that institutional support within the program is generally strong and effective in fostering learning and skill development.

Table 23 summarizes the issues and concerns regarding the TVL program as perceived by teachers and administrators. Among the different categories, program methods emerged as the most influential factor, with a mean score of 4.61 and a standard deviation of 0.48, highlighting its significant impact on the TVL program.

Conversely, the lowest-rated category had a mean score of 4.25 and a standard deviation of 0.82. Yet, it still falls within the " Highly Influenced " interpretation, emphasizing its relevance and contribution to the program.

Table 23. *Summary on the Level of Issues and Concerns of the TVL Program as Perceived by the Teachers and Administrators*

	Indicators	*Mean*	*SD*	*Interpretation*
1	Program Method	4.61	0.48	Highly Influenced
2	Curriculum	4.48	0.61	Highly Influenced
3	Facilities	4.29	0.81	Highly Influenced
4	Partnerships	4.57	0.56	Highly Influenced
5	Institutional Support	4.25	0.82	Highly Influenced
	Overall Mean	4.44	0.66	Highly Influenced

Ochwo, Wilson, and Kasule (2023) emphasized that Instructors must be proficient in preparing lesson plans, delivering lessons in alignment with the curriculum, employing appropriate teaching methods, ensuring the availability of instructional materials, and effectively using them to help students achieve learning objectives. The overall mean of 4.44, with a standard deviation of 0.66, indicates the strong influence of teachers and administrators in key areas such as program methods, curriculum, partnerships, and institutional support, all of which play a vital role in the effectiveness of the TVL program.

Level of Issues and Concerns of the TVL Program as Perceived by the Stakeholders and Industry Partners.

This section presents the issues and concerns of stakeholders and industry partners regarding the TVL program, focusing on economic labor, government policies, community involvement, and external factors.

Table 24. *Level of Issues and Concerns of the TVL Program as Perceived by the Stakeholders and Industry Partners based on Economic Labor*

	Statements	*Mean*	*SD*	*Interpretation*
1	The availability of jobs in a chosen TVL specialization is high in my region.	4.12	0.59	Influenced
2	The salaries offered in jobs related to TVL specialization are competitive.	3.85	0.78	Influenced
3	There is a strong demand for skilled workers in TVL specialization.	3.92	0.63	Influenced
4	The economic conditions in my region support the growth of industries related to TVL specialization.	3.85	0.83	Influenced
	Section Mean	3.93	0.71	Influenced

According to Chakravarty et al. (2019), vocational training has a positive and statistically significant impact on employment probability and labor market earnings. Table 24 presents the level of issues and concerns in other TVL programs as perceived by stakeholders and industry partners. "Jobs in a chosen TVL specialization is high in my region" recorded the highest mean of 4.12 with a standard deviation of 0.59, emphasizing the importance of job opportunities within the field. The lowest mean of 3.85 was observed for two indicators, each with different standard deviations of 0.83 and 0.78, yet both still fall under the "Influenced" interpretation, indicating minimal variations in responses. The overall section mean of 3.93, with a standard deviation of 0.71, suggests that economic labor conditions in the region are favorable, contingent on job availability. As reflected in prior research, observational studies consistently highlight the positive and statistically significant influence of training on employment prospects and earnings (Chakravarty et al., 2019).

Table 25. *Level of Issues and Concerns of TVL Program as Perceived by the Stakeholders and Industry Partners based on Government Policies*

	Statements	*Mean*	*SD*	*Interpretation*
1	Government policies support the development and growth of TVL programs	3.81	0.69	Influenced
2	There are sufficient government-funded scholarships and financial aid options for TVL students.	3.60	0.65	Influenced
3	Government regulations ensure the quality of TVL education and training.	3.69	0.79	Influenced
4	The government promotes TVL education through public awareness campaigns and initiatives.	3.77	0.65	Influenced
	Section Mean	3.72	0.69	Influenced

According to Arban et al. (2024), there is a strong commitment to effectively implementing TVL track policies, demonstrating the local community's dedication to the program. However, despite these efforts, challenges persist, including curriculum and instructional issues, readiness and preparedness concerns, resource limitations, and factors related to teaching and learning.

Table 25 presents the level of issues and concerns of the TVL Program as perceived by stakeholders and industry partners, focusing on government policies that support the TVL track in senior high schools. Among the indicators, "Government policies support the development and growth of TVL programs" recorded the highest mean of 3.81 with a standard deviation of 0.69, highlighting the significant commitment of the government to the program.

Conversely, the lowest indicator had a mean of 3.60 and a standard deviation of 0.65, yet both the highest and lowest indicators share the same interpretation of "Influenced," reflecting minimal variation in responses. The overall section mean of 3.72, with a standard deviation of 0.69, further supports the conclusion that government policies play a crucial role as the foundation of the TVL program, ensuring its sustainability and effectiveness.

Table 26. *Level of Issues and Concerns of TVL Program as Perceived by the Stakeholders and Industry Partners based on Community Involvement*

	Statements	*Mean*	*SD*	*Interpretation*
1	The local community actively supports TVL programs and students.	3.96	0.82	Influenced
2	There are partnerships between the TVL program and local businesses for internships and job placements.	4.00	0.75	Influenced
3	Community organizations provide additional resources and support for TVL students.	4.00	0.75	Influenced
4	Parents and families are engaged and supportive of students pursuing TVL education.	3.88	0.82	Influenced
	Section Mean	3.96	0.78	Influenced

Parent and community participation in school-sponsored events plays a crucial role in fostering community involvement (Preston, J. P., 2013). Table 26 presents the level of issues and concerns of the TVL program as perceived by stakeholders and industry partners, focusing on community involvement. This category consists of four indicators, with the highest mean of 4.00 shared by two indicators, both having a standard deviation of 0.75. This is followed by an indicator with a mean of 3.96 and a standard deviation of 0.82, while the lowest mean of 3.88, also with a standard deviation of 0.82, reflects a close variation in responses. The overall section mean of 3.96, with a standard deviation of 0.78, underscores the significance of community involvement in effectively implementing the TVL program. Community engagement in schools offers additional benefits, including service-learning, a teaching approach that integrates academic content with community service or volunteerism. This method enables students to address local social and economic needs, strengthening the connection between education and real-world applications (Gent, 2009; Kaiser-Drobney, 2011).

Table 27. *Level of Issues and Concerns of TVL Program as Perceived by the Stakeholders and Industry Partners based on External Factor*

	Statements	*Mean*	*SD*	*Interpretation*
1	Economic labor conditions positively influence my decision to pursue a TVL track.	3.81	0.80	Influenced
2	Government policies and support are sufficient to ensure the success of TVL programs.	3.73	0.67	Influenced
3	Community involvement enhances the effectiveness of the TVL program.	3.88	0.65	Influenced
4	Overall, external factors such as economic labor conditions, government policies, and community involvement positively impact my TVL education.	3.88	0.65	Influenced
	Section Mean	3.83	0.69	Influenced

Internal and external factors are crucial in students' selection of a Senior High School career track. External factors, in particular, significantly impact students, influencing their academic performance, career choices, and overall well-being. These factors include family support, peer influence, socioeconomic status, and job opportunities (Ladia, 2024). Table 27 presents the level of issues and concerns of the TVL Program as perceived by stakeholders and industry partners, focusing on external factors. The findings indicate that two indicators share the same mean score of 3.88 with a standard deviation of 0.65, reflecting closely aligned responses. This is followed by another indicator with a mean of 3.85 and a standard deviation of 0.80. The lowest mean score of 3.73, with a standard deviation of 0.67, represents the least-rated external factor. The overall section mean of 3.83, with a standard deviation of 0.69, highlights the collective impact of external factors on the TVL program. The results, interpreted as "Influenced" across all indicators, emphasize the influence of economic labor, government policies, community involvement, and other external factors on the success and effectiveness of the TVL program. The efficacy of the TVL track is influenced by outside variables, including government regulations and labor demand (Rivera, 2021).

Table 28. *Summary on the Level of Issues and Concerns of the TVL Program as Perceived by the Stakeholders and Industry Partners*

	Indicators	*Mean*	*SD*	*Interpretation*
1	Economic Labor	3.93	0.71	Influenced
2	Government Policies	3.72	0.69	Influenced
3	Community Involvement	3.96	0.78	Influenced
4	External Factor	3.83	0.69	Influenced
	Overall Mean	3.86	0.72	Influenced

According to Ladia (2024), future job opportunities are the greatest external factor in selecting Senior High School career tracks. Among the key considerations, personal interests rank as the most significant factor, followed by future job opportunities, family influence, school considerations, teacher influence, financial stability, and peer influence. Table 28 summarizes the level of issues and concerns of the TVL Program as perceived by stakeholders and industry partners. The findings indicate that community involvement received the highest mean score of 3.96, with a standard deviation of 0.78, followed by economic labor, with a mean of 3.93 and a standard deviation of 0.71. Industry influence ranks third among external factors, with a mean of 3.83 and a standard deviation of 0.69. In contrast, government policies ranked the lowest, with a mean of 3.72 and a standard deviation of 0.69, all interpreted as "Influenced." Overall, the results highlight the significant role of stakeholders and industry partners in shaping students' decisions when selecting a TVL specialization and their contributions to equipping learners with relevant knowledge and skills. UNESCO-UNEVOC (2018)

emphasizes that strengthening the link between TVET institutions and the labor market is crucial to ensuring that skills development translates into employment opportunities. The industry's involvement is key in providing learners access to jobs and economic stability. The overall mean score of 3.86, with a standard deviation of 0.72, supports the "Influenced" interpretation, confirming the importance of these external influences on the TVL program.

Status of the Graduates and the TVL Program.

This table shows the significant influences between the status of the graduates and the TVL program.

Table 29. *Results of Analysis of Variance (ANOVA) between the Status of the Graduates and the Influence of the TVL Program*

Indicators		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig*	*Interpretation*
Academic	Between Groups	91.623	7	13.089	141.555*	.000	Significant
	Within Groups	8.784	95	.092			
	Total	100.408	102				
Career	Between Groups	104.417	7	14.917	57.988*	.000	Significant
	Within Groups	24,438	95	.257			
	Total	128.854	102				
Vocational	Between Groups	37.024	7	5.289	66.996*	.000	Significant
	Within Groups	7.500	95	.079			
	Total	44.524	102				

**Significant at the .05 level.*

The results presented in Table 29 reveal the outcomes of an Analysis of Variance (ANOVA), examining the relationship between the status of the graduates and the influence of the TVL (Technical-Vocational-Livelihood) program across three key indicators: Academic, Career, and Vocational outcomes. The ANOVA findings demonstrate statistically significant differences in these areas, with p-values (Sig.) of .000, below the conventional threshold of 0.05. This indicates that the observed differences in graduates' status across the different TVL program indicators are not due to chance but to meaningful variations influenced by the program (Field, 2018).

For the Academic indicator, the F-value of 141.555 with a significance level of .000 suggests a very strong and significant effect of the TVL program on graduates' academic outcomes. The large F-value implies a high variance ratio between the groups compared to the variance within the groups. This suggests that the academic success of graduates is significantly based on their exposure to and participation in the TVL program. According to Creswell and Creswell (2018), such findings reflect the effectiveness of intervention programs when high between-group variances are observed in outcomes like academic performance.

Career outcomes also have an F-value of 57.988 and a p-value of .000. This indicates that the TVL program plays a substantial role in shaping the career opportunities available to graduates. The significant variance among the groups suggests that graduates from different TVL specializations experience varied career trajectories, which aligns with the literature on vocational education's role in improving employability and job readiness (ILO, 2021).

Similarly, the Vocational outcomes exhibit a significant effect, with an F-value of 66.996 and a significance level of .000. This implies that the TVL program significantly impacts the vocational skill development of its graduates. The mean squares between groups (5.289) versus within groups (.079) highlight the program's effectiveness in equipping students with practical skills, consistent with findings by UNESCO (2020), which emphasize how TVET (Technical and Vocational Education and Training) programs address skills mismatches in the labor market and enhance graduates' employability.

Thus, the ANOVA results indicate that the TVL program significantly and positively influences graduates' academic achievement, career opportunities, and vocational competencies. These findings support the critical role of technical and vocational education in enhancing educational and employment outcomes, as highlighted by both global (ILO, 2021; UNESCO, 2020) and local research (Creswell & Creswell, 2018; Field, 2018).

Table 30. *Results of the Pearson-r Correlations between the Most Relevant Disciplines and the Influence of the TVL Program*

Indicators	*Academic Success Outcome*	*Career Opportunity Outcome*	*Vocational Competency Outcome*
Most Relevant Discipline	-.671* (.000)	.753* (.000)	-.671* (.000)

** Significant at the .05 level.*

The Pearson-r correlation results presented in Table 30 explore the relationship between the most relevant high school disciplines and the influence of the Technical-Vocational-Livelihood (TVL) Program on three key outcomes: Academic Success, Career Opportunities, and Vocational Competency. The findings reveal statistically significant correlations at the 0.05 level, suggesting meaningful associations between these variables.

Firstly, there is a strong negative correlation between the most relevant discipline and academic success outcomes ($r = -0.671$, $p = .000$). This implies that academic success tends to decrease as the relevance of certain disciplines increases.

The findings indicate a strong negative relationship between academic success and TVL performance, suggesting a potential mismatch between high school subjects and the TVL curriculum. Conversely, a strong positive correlation exists between high school disciplines and career opportunities, implying that relevant academic subjects can enhance employment prospects. However, the negative correlation with vocational competency denotes that subjects may seem relevant yet may not adequately develop the hands-on technical skills required in the field. This suggests that while subjects may appear relevant, they may not sufficiently build the hands-on technical skills necessary in the field (Hiebert & Borgen, 2020).

This counterintuitive finding may reflect a potential mismatch between the focus areas of high school disciplines and the competencies required for academic success in TVL programs. According to Field (2018), such negative correlations can indicate areas where curriculum alignment or instructional strategies may need refinement to ensure that foundational subjects like Math, Science, and English effectively support TVL academic achievements.

In contrast, the correlation between the most relevant discipline and career opportunity outcomes is positive and very strong ($r = 0.753$, $p = .000$). This suggests that aligning high school disciplines with TVL-related subjects significantly enhances graduates' career opportunities. This positive relationship aligns with the findings of UNESCO (2020), which emphasize that relevant and contextualized education prepares learners more effectively for the labor market, thus improving their employment prospects. It highlights the critical role of curriculum relevance in equipping students with skills that match industry demands, ultimately leading to better job placement rates and career pathways.

Similarly, the correlation between the most relevant discipline and vocational competency outcomes is also negative ($r = -0.671$, $p = .000$). This indicates that as the perceived relevance of certain disciplines increases, vocational competency outcomes decrease. This could suggest that while students perceive some disciplines as relevant, they may not necessarily translate into enhanced practical or technical skills. ILO (2021) notes that skills are often mismatched when education and training programs are not fully aligned with actual labor market needs. This emphasizes the importance of continual curriculum review and industry collaboration in TVET programs to ensure competency-based learning.

Therefore, these correlation findings provide valuable insights into the dynamics between the relevance of prior academic disciplines and TVL program outcomes. While alignment with relevant disciplines can enhance career opportunities, ensuring these disciplines support academic success and vocational competencies is necessary. The data emphasizes the importance of curriculum relevance and integration as advocated by international frameworks on technical and vocational education and training (UNESCO, 2020; ILO, 2021).

This tracer study at Bambad National High School tracked TVL graduates from 2021 to 2024, focusing on enrollment patterns, employment outcomes, and the program's impact on academic, career, and vocational development. Among 103 participants, Cookery was the most preferred specialization, followed by Electrical Installation and Agricultural Crop Production.

Data revealed growing interest in TVL programs, especially among the 2023–2024 graduates. Gender trends showed males favoring technical trades, while females preferred food and agriculture-related fields. Many graduates pursued further education, while employment outcomes varied by specialization—technical fields had better job placement, while areas like Garments had higher unemployment.

Feedback from teachers, administrators, stakeholders, and industry partners highlighted strong local support and effective teaching practices, but also noted a lack of parental involvement and incomplete demographic data. Overall, the study emphasizes the importance of industry collaboration, improved data collection, and enhanced job placement strategies to better support TVL graduates.

The study evaluated the effectiveness of the TVL program at Bambad National High School based on feedback from teachers, administrators, stakeholders, and industry partners. Teachers and administrators expressed high satisfaction across five areas—program Method, Curriculum, Facilities, Partnerships, and Institutional Support—with teaching methods and industry collaboration rated especially high.

Stakeholders and industry partners also rated the program positively in economic labor conditions, community involvement, and external influences. While community support and job opportunities were strong, concerns were noted about government funding and promotional efforts. The TVL program is seen as effective in preparing students for careers and further education, though improvements in resources, funding, and parental involvement are recommended to maximize its impact.

The study used ANOVA and Pearson's r correlation to assess the TVL program's impact on graduates' academic success, career opportunities, and vocational competency. The ANOVA results showed that the TVL program significantly influences all three areas,

confirming its strong role in shaping graduates' academic performance, employment prospects, and technical skills.

Correlation analysis revealed a strong negative relationship between high school subjects, academic success, and vocational competency, suggesting a disconnect between general education and the hands-on skills needed for TVL. However, a strong positive correlation with career opportunities indicates that relevant high school disciplines still enhance employability. The findings emphasize the importance of aligning high school curricula with TVL program goals to support students' academic and career outcomes better.

Conclusions

The findings confirm that the TVL program significantly enhances academic, career, and vocational outcomes. However, the negative correlations with academic success and vocational competency suggest a need for better alignment between high school curricula and TVL training. Strengthening industry collaborations and refining course content can help bridge these gaps and improve graduate success in both academic and practical competencies

By implementing these recommendations, the TVL program can better address academic challenges, enhance vocational skills, and improve graduates' employability and career growth.

Finally, the TVL track makes a vital contribution to graduates' academic success, career prospects, and vocational competence. The higher the academic exposure, the lower the TVL outcome, but career opportunities are high for TVL program graduates.

References

Abidin, M. S. Z., Mokhtar, M., & Arsat, M. (2023)..Asian Education and Development Studies. https://doi.org/ [DOI number if available

Agustin, H. Y., & Permana, J. (2020). Management of facilities and infrastructures for improving the learning quality of vocational high school. In Proceedings of the 3rd International Conference on Research of Educational Administration and Management (ICREAM 2019) (pp. 64–68). Atlantis Press. https://doi.org/10.2991/assehr.k.200130.141

Andaya, J. D., Soliven, S. M., Palacio, E. S., Unida, M. C., Albino, M. M. D., Almeyda, J. M., Intino, J. C., Lico, N. R. V., Mendoza, R. M., Pawilen, G. T., Albor, R. G. Z., De Guzman, R. P., Duran, M. D. A., Yague, C. D., Recto, F. B., & Gironella, E. A. M.

Arban, J. C. G., Enad, F. B., & Pabalan, A. P. (2024). The implementation and challenges of the Senior High School Technical-Vocational-Livelihood Track. Psych Education, 26(1), 6–12. https://doi.org/10.5281/zenodo.13875831

Basu Das, S., & Narayanan, B. (2023). ASEAN education cooperation. Journal of Southeast Asian Economies, 39(Special Issue), S80-S101. ISEAS - Yusof Ishak Institute.

Bentayao, A. M., Sawe, J. B., Libot, R. M., & Villabrille, L. G. (2021). Tracer study of the graduates of Bachelor of Arts major in English. Journal of Tianjin University Science and Technology, 54(5). https://doi.org/10.17605/OSF.IO/ME2FS

Cabarles, R. C., III. (2022, December 25). ASEAN educational system (origin) [PowerPoint slides].

Chakravarty, S., Lundberg, M., Nikolov, P., & Zenker, J. (2019). Vocational training programs and youth labor market outcomes: Evidence from Nepal. Journal of Development Economics, 136, 71–110. https://doi.org/ [Insert DOI]

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

Cuadra, L., Aure, M. R. K. L., & Gonzaga, G. (2019). The use of tracer study in improving undergraduate programs in the university. August, 6(1), 13-25.

Del Rosario, L. P. (2021). Strengthening vocational education for 21st-century skills: Perspectives from senior high school implementation in the Philippines (Unpublished master's thesis). University of the Philippines

Department of Education (DepEd). (2017). Senior high school curriculum guide. DepEd Official Website

Dizon, R. L., Calbi, J. S., Cuyos, J. S., & Miranda, M. (2019, December 4). Perspectives on the implementation of the K to 12 programs in the Philippines: A research review. Quality Assurance Analyst, Qualfon Philippines Incorporated, Cebu City, Cebu, Philippines.

Eñego, J. A., Oliveros, B. V. M., Loremia, A. S., Aballe, R. S., Berongan, J. E., & Miranda, M. M. (2019). Philippine educational system towards ASEAN education standard [PDF file]. Copyright @ 2010 International Journal of Current Research. All rights reserved. https://doi.org/10.24941/ijcr.37428.12.2019

Eviota, E., Abayan, A., & Dizon, J. (2019). Employability of TVL Senior High School Graduates: Basis for Enhancement Program. International Journal of Advanced Research and Publications, 3(10), 81-87.

Febrer, L. B., Cabral, J., & Religios, M. A. (2022, November). A tracer study on the senior high school strands and curriculum exits of junior high school completers of Prudencia D. Fule Memorial National High School. Department of Education. https://doi.org/10.13140/RG.2.2.10197.29926

Field, A. (2018). Discovering Statistics Using IBM SPSS Statistics (5th ed.). SAGE Publications.

Gomez, D. D., & Mapa, C. P. E. (2022, September). A three-year tracer study of the technical vocational track graduates of Divine Word College of Legazpi Senior High School Department.

Hiebert, B., & Borgen, W. A. (2020). Technical and vocational education and training: Issues, concerns and prospects. Springer. https://doi.org/10.1007/978-3-030-46943-0

Hwang, J. A. (2014). Education systems in ASEAN+6 countries: A comparative analysis of selected educational issues (THA/DOC/14/004-E). United Nations Educational, Scientific and Cultural Organization. Published by UNESCO Paris and UNESCO Bangkok Office.

International Labour Organization (ILO). (2021). Skills and Employability.

International Labour Organization (ILO). (2022). Global Employment Trends for Youth 2022. Geneva: ILO.

Kenton, W. (2024, July 30). How to use this statistical analysis tool. Investopedia.

Kilag, O. K. T., Dejino, J. A., Arcillo, M. T., Borong, M. L., Manligoy, R. G., & Combista, L. I. (2023). Exploring the determinants of senior high school track preference among Grade 10 students: A comprehensive study. Web of Semantic: Universal Journal on Innovative Education, 2(6), 31–42

Krishna, V. V. (2005). Institutional support structures and modes of skills transmission. Science, Technology & Society, 2(75-90). https://doi.org/10.1007/1-4020-3427-X_5

Ladia, L. L. (2024). Internal and external factors: Their influences on the senior high school selection of career tracks. International Journal of Advanced Research and Innovative Ideas in Education, 10(4), 485. https://www.ijariie.com

Liwanag, K. S. (2021). Senior high school graduates tracer study (GTS): Basis for a proposed learners' work immersion plan. IEJRD - International Multidisciplinary Journal, 6(5), 13.

Lopez, M. A. (2020). Gender trends in education: Examining female participation in technical and academic specializations in Philippine senior high schools (Unpublished master's thesis). University of Santo Tomas.

McLeod, S. (2023, December 13). Questionnaire method in research. Simply Psychology. https://www.simplypsychology.org/questionnaire-method.html

Mendoza, R. T. (2021). Adapting vocational education to the challenges of Industry 4.0: A framework for future-ready skills (Unpublished master's thesis). Technological University of the Philippines.

National Center for Education Statistics. (2020). The condition of education 2020 (NCES 2020-144). U.S. Department of Education. https://nces.ed.gov/pubs2020/2020144.pd

National Economic and Development Authority (NEDA). (2023). Philippine Development Plan 2023-2028. https://neda.gov.ph

Ochwo, R., Wilson, M., & Kasule, G. W. (2023). Institutional factors and curriculum fidelity in vocational training centres in Kampala City, Uganda. Interdisciplinary Journal of Education Research, 5(1), 35–47. https://doi.org/10.38140/ijer-2023.vol5.04

Orbeta, A. Jr. C., & Paqueo, V. B. (2022, August 19). Philippine education: Situationer, challenges, and ways forward (Labor and Education DP 2022-23).

Padios, A. C., Jr., Lejano, R. L., Gorospe, S. A. T., & De Asis, V. L. (2021). Strand and statehood predictors of senior high school graduates: A tracer study. International Journal of Sciences: Basic and Applied Research (IJSBAR). Aurora State College of Technology, Zabali, Baler, Aurora, Philippines.

Philippine Statistics Authority (PSA). (2023). Employment Situation in the Philippines. https://psa.gov.ph

Preston, J. P. (2013). Community involvement in school: Social relationships in a bedroom community. Canadian Journal of Education / Revue canadienne de l'éducation, 36(3).

Qadri, S. S. (2021). Data collection methods in business administration (MPhil thesis).

Ramos, F. G. (2021). 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, 10(2), 877–900. https://doi.org/xxxxx (Replace "xxxxx" with the actual DOI if available

Reyes, J. D. (2021). Demographic profile and learning preferences of graduate students in selected Philippine universities (Unpublished master's thesis). University of the East.

Rivera, J. L. (2021). External influences on the implementation and outcomes of the Technical-Vocational-Livelihood track in Philippine senior high schools

Robles, R., & Hebron-Ariston, N. (2024). Career pathways of technical, vocational, and livelihood senior high school graduates in

Pililla National High School. Psychology and Education: A Multidisciplinary Journal, 17(2)

Sanchez, A. (2023). Employability of Grade 12 Technical Vocational Livelihood (TVL) graduates from schools in highly industrialized districts of Laguna. Psychological Education Multidisciplinary Journal, 12(10), 1142-1147. https://doi.org/10.5281/zenodo.8305470

Santos, A. M. (2022). The impact of Technical-Vocational-Livelihood (TVL) track programs on students' academic performance and career readiness in senior high school (Unpublished master's thesis). Philippine Normal University.

Schiefelbein, E., & Farrell, J. P. (1987). Tracer studies. In G. Psacharopoulos (Ed.), Economics of education: Research and studies (pp. 382-385). Pergamon Press.

Schomburg, H. (2016). Carrying out tracer studies. European Training Foundation / European Centre for the Development of Vocational Training / International Labour Office. Article 10.

Sichombe, B. (2022). Tracer study of 2017-2019 NAMCOL TVET graduates. National Institute for Educational Development, Namibia. SSN: 2311-1550, 9(3), 545-562.

Sorkatii, A. I. K., Waheed, E. A. E., & El Ashmawi, W. A. (2016). A tracer study of technical vocational education and training institute graduates in Khartoum State. International Labour Organization

Tablatin, C. L., & Dela Cruz, M. A. (2020). Implementation of Technical-Vocational-Livelihood (TVL) Track in Senior High School. International Journal of Advanced Research in Management and Social Sciences, 9(1), 58-73.

Technical Education and Skills Development Authority. (2020). Technical education and skills development authority annual report 2020. https://www.tesda.gov.ph

Tie, F. H. (2012). Education Systems in Asia. In C. L. Glenn & J. De Groof (Eds.), Balancing freedom, autonomy and accountability in education: Volume 1 (265-275). Tilburg, NL: Wolf Legal Publishers.

Torpey, E. (2022). Measuring the value of education: Career outcomes for college graduates. U.S. Bureau of Labor Statistics. https://www.bls.gov/careeroutlook/2022/article/education-pays.htm

Turney, S. (2022, May 13). Pearson correlation coefficient (r) | Guide & examples. Revised on February 10, 2024. Scribbr. https://www.scribbr.com/statistics/pearson-correlation-coefficient/

UNEVOC Centre. (2018). UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, UN Campus, Platz der Vereinten Nationen 1, 53113 Bonn, Germany [Title of the specific webpage, if applicable]. UNEVOC. http://www.vetp.mn

United Nations Educational, Scientific and Cultural Organization. (2015). Rethinking education: Towards a global common good? Paris: UNESCO Publishing.

United Nations Educational, Scientific and Cultural Organization. (2020). Global Education Monitoring Report: Inclusion and education. Paris: UNESCO.

Verona, L. (2011). A tracer study of the employment status of PUPQC AY 2014-2005.

World Bank, UNESCO, & ILO. (2023). Building better formal TVET systems: Principles and practice in low- and middle-income countries. The World Bank, UNESCO, and ILO. https://openknowledge.worldbank.org/handle/10986/40072

Affiliations and Corresponding Information

Elvin L. Valerio
Bambad National High School
Department of Education – Philippines

Abraham S. Accad, PhD, DHum
Sultan Kudarat State University – Philippines