



## Employability of Technical-Vocational-Livelihood Senior High School Graduates: The Influence of Demographic Factors at Passi National High School

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### Abstract

This study assessed the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates in Passi National High, Poblacion Ilaya, Passi City, Iloilo, Philippines. It also examined how demographic characteristics, such as age, sex, and year graduated, influence employment outcomes. A total of 300 graduates from the school year 2021 to 2024 cohorts participated in the study. Data were analyzed using descriptive statistics, One-Way ANOVA, and Independent Samples t-test to determine levels of employability and significant differences across demographic profiles. Results revealed that the majority of graduates fall under the Low Employability category, with slightly higher employability observed among older graduates (20–21 years), female graduates, and those who graduated earlier (2021). Significant differences were found in employability across age, sex, and year graduated, indicating that demographic factors influence workforce readiness. These findings align with both local and international studies highlighting the role of maturity, work immersion experience, and soft skills in enhancing employability. The study underscores the need for enhanced career guidance, expanded work immersion opportunities, soft skills development, and continuous skills enhancement to improve employment outcomes. Strengthening partnerships with industry and community stakeholders and implementing systematic monitoring of graduate employment are also recommended to bridge the gap between technical-vocational education and labor market demands.

**Keywords:** employability, TVL graduates, Senior High School, work immersion, demographic factors, career preparedness



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## INTRODUCTION

In the global context, technical and vocational education and training (TVET) have been widely recognized as a key driver of workforce development and economic growth. International organizations, such as UNESCO (2021), emphasized that TVET played a crucial role in addressing youth unemployment by equipping learners with job-relevant skills and competencies aligned with industry demands. Many countries have significantly strengthened their vocational education systems, ensuring that graduates emerge not only with strong technical competencies but also with the adaptability, resilience, and innovative capacity required to thrive in today's rapidly evolving global labor market.

In the Philippines, this global direction was reflected in the implementation of the K to 12 Basic Education Program under Republic Act No. 10533, which aimed to produce holistically developed and globally competitive graduates. A central component of this reform was the Senior High School (SHS) Technical-Vocational-Livelihood (TVL) track, which was designed to provide learners with practical skills, industry exposure, and National Certifications (NCs) through the Technical Education and Skills Development Authority (TESDA) (Department of Education, 2016; TESDA, 2018). The TVL track included specializations such as hospitality, information and communications technology, agriculture, and industrial arts, all aligned with labor market needs.

Despite these initiatives, national reports and studies have revealed persistent challenges in graduate employability. Recent findings indicated that skills mismatch, inadequate work readiness, and limited industry experience continued to affect employment outcomes among TVET graduates (Orbeta & Paqueo, 2017; World Bank, 2020). Moreover, employers frequently reported deficiencies in soft skills such as communication, problem-solving, and adaptability, which were critical in the workplace (Asian Development Bank, 2019). These concerns raised questions about the effectiveness of the TVL track in achieving its intended goal of producing job-ready graduates.

At the local level, particularly in Passi National High School, in Poblacion Ilaya, Passi City, Iloilo, Philippines, there had been limited empirical evidence examining the actual employability status of TVL graduates. Anecdotal observations and available school records suggested that not all graduates secured employment immediately after graduation, and some encountered challenges related to job placement, certification attainment, and alignment of acquired skills with available job opportunities. However, there had been a lack of systematic data that clearly identified the extent of these issues, thereby creating a gap in the localized understanding of TVL outcomes.

Furthermore, while existing studies had explored TVET employability at the national level, few had focused on specific school contexts, thereby limiting the applicability of findings to local educational planning and intervention. This gap highlighted the need for a contextualized investigation that examined the employment status, skills preparedness, and challenges encountered by TVL graduates in Passi National High School.

This study was therefore significant both practically and theoretically. Practically, it provided insights for school administrators, teachers, and policymakers in enhancing curriculum implementation, strengthening industry linkages, and improving training

delivery within the TVL track. The findings also served as a basis for informing DepEd and TESDA in refining policies and support mechanisms for technical-vocational education. Theoretically, the study contributed to the growing body of literature on employability by providing localized evidence on how educational programs translated into labor market outcomes.

Given these considerations, this study aimed to assess the employability of TVL graduates of Passi National High School by examining their employment status, level of skills preparedness, and the challenges they encountered in entering the workforce.

**Research Objectives.** This study aims to assess the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates

This study aims to determine the following:

1. What is the profile of the respondents in terms of age, sex and year graduated?
2. What is the level of employability of the TVL graduates when they are group according to the identified profile?
3. Are there significant differences in the employability of TVL graduates when they are group according to profile?

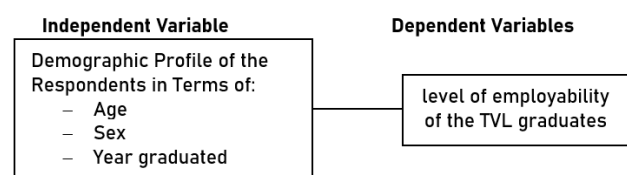
**Conceptual Framework.** This study aimed to assess the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates and determine whether selected demographic characteristics influenced their level of employability.

The independent variables included age, sex, and year graduated. These factors were considered relevant as they may affect employment opportunities, skills development, and workforce readiness. Previous studies suggested that age may be associated with maturity and work exposure, sex may influence employment outcomes across sectors (International Labour Organization, 2020), and

year graduated may reflect the recency and relevance of acquired competencies.

The dependent variable was the level of employability, which referred to the graduates' ability to obtain and sustain employment, including their preparedness to meet job requirements and adapt to workplace demands. Employability encompassed a combination of technical skills, knowledge, and personal attributes essential for workplace success (Yorke, 2006).

This study examined the relationship between the respondents' demographic characteristics and their level of employability to determine whether significant differences existed among groups. The findings provided insights into how individual factors were associated with employment outcomes among TVL graduates



**Figure 1**  
*The Conceptual Design Depicting the Relationship Between Variables.*

## LITERATURE REVIEW

**Definition and Dimensions of Employability.** Employability has been widely recognized as a multidimensional construct encompassing not only technical competence but also personal attributes and adaptability. Yorke (2006) defined employability as a combination of skills, knowledge, and personal qualities that enable individuals to gain and sustain employment. More recent studies expanded this concept by emphasizing the importance of soft skills, such as communication, teamwork, and problem-solving, alongside technical expertise (Mariano & Tantoco, 2023; Miranda et al., 2025).

Empirical studies in the Philippine context supported this perspective. Using a descriptive research design, Sanchez (2023) found that TVL graduates were moderately prepared for employment, demonstrating adequate technical

skills but needing improvement in aligning competencies with industry standards. Similarly, Mariano and Tantoco (2023), through employer-based assessments, reported that while graduates possessed sufficient technical knowledge, deficiencies in soft skills significantly affected hiring decisions. These findings underscored that employability extends beyond training outcomes and is shaped by workplace expectations.

This conceptualization informed the present study by framing employability as the dependent variable, measured not only in terms of employment status but also readiness to meet job demands.

**Influence of Demographic Factors on Employability.** Demographic characteristics have been identified as significant factors influencing employment outcomes. Age has been associated with maturity, work exposure, and adaptability, which may enhance employability over time. Yoshida (2025) suggested that older graduates may benefit from greater work experience, while younger graduates may possess more updated skills.

Sex has also been examined in relation to labor market outcomes. The International Labour Organization (ILO, 2020) reported persistent gender disparities in employment opportunities, particularly in technical and vocational sectors, where occupational segregation and employer preferences may influence hiring practices. Yoshida (2025), using a correlational design, further found that gender differences could affect work readiness and employment access in TVET contexts.

Year graduated reflects the recency of training and relevance of acquired competencies. Recent graduates are often more familiar with current industry standards, while earlier graduates may have accumulated practical work experience that enhances employability (Valerio & Accad, 2025).

The inclusion of age, sex, and year graduated in this study was therefore grounded in both

theoretical and empirical literature, as these variables were consistently shown to influence employment outcomes. This theme directly informed the independent variables of the study and guided the analysis of differences in employability across groups.

**Role of Work Immersion and Certification.** Work immersion and certification have been identified as critical components of employability in technical-vocational education. Work-integrated learning, such as internships and on-the-job training, allows students to apply theoretical knowledge in real-world settings, thereby enhancing both technical and soft skills. Jackson (2015) demonstrated that such experiential learning significantly improves graduates' transition to employment by reducing the gap between academic preparation and industry expectations.

In the Philippine setting, Yoshida (2025) found that work immersion experience significantly influenced work readiness among TVL graduates. Similarly, Pascual, E. (2024), using a quantitative approach, reported that obtaining National Certificate (NC II) credentials increased graduates' employment opportunities and competitiveness in the labor market. However, not all graduates were able to obtain certifications, which created disparities in employment outcomes.

International evidence supported these findings. Allais, S. (2012) highlighted that vocational training combined with practical experience improved both employment rates and job quality. Kovalev et al. (2025) further emphasized that industry-recognized certifications strengthened the alignment between education and labor market demands.

This body of literature informed the study by highlighting external factors that may influence employability, providing context for interpreting the employment outcomes of TVL graduates.

**Gaps in TVL Graduate Outcomes.** Despite the recognized benefits of the TVL track, several studies pointed to persistent gaps in graduate

outcomes. Roble (2021) identified a mismatch between the skills acquired by graduates and those required by employers, particularly in practical competencies. Similarly, Sanchez (2023) noted that while graduates demonstrated foundational skills, alignment with industry expectations remained a challenge. Valerio and Accad (2025) further revealed that employment outcomes varied depending on specialization and quality of training, suggesting inconsistencies in program implementation. Moreover, while national-level studies provided valuable insights, there remained a lack of localized research focusing on specific school contexts.

This gap was particularly evident in Passi National High School, where limited empirical data existed regarding the employability of TVL graduates. Most existing studies relied on broader regional or national samples, thereby limiting their applicability to local educational planning and intervention.

**Synthesis and Link to the Present Study.** The reviewed literature established that employability is influenced by a combination of technical skills, soft skills, work experience, certifications, and demographic factors. While previous studies provided substantial evidence on these determinants, gaps remained in understanding how demographic characteristics specifically influenced employability at the local level.

Thus, this study addressed these gaps by examining the employability of TVL graduates of Passi National High School, with particular focus on the influence of age, sex, and year graduated. By situating the investigation within a specific institutional context, the study contributed localized evidence that could inform curriculum development, policy implementation, and targeted interventions in technical-vocational education.

## METHODOLOGY

This study employed a descriptive research design to assess the employability of Technical-

Vocational-Livelihood (TVL) Senior High School graduates and to determine whether their demographic characteristics influenced employment outcomes. Descriptive research is appropriate when the objective is to systematically describe the characteristics, conditions, or practices of a specific group without manipulating variables (McMillan & Schumacher, 2010). This design enabled the researcher to examine the current employment status, preparedness, and challenges experienced by TVL graduates in a natural setting.

The study focused on TVL graduates from Passi National High School who completed Senior High School between 2021 and 2024. The total sample size of 300 respondents was determined using Slovin’s formula, with a 5% margin of error, based on the estimated population of TVL graduates within the specified period. This approach ensured that the sample size was sufficient to yield reliable and representative results. To facilitate comparative analysis, the sample was proportionally distributed across the four graduating cohorts, with 75 respondents selected from each year level.

A purposive sampling technique was employed in selecting the respondents. This method was deemed appropriate because the study specifically targeted individuals who had completed the TVL track and had relevant experiences related to employment or job-seeking. Purposive sampling allowed the researcher to intentionally select participants who could provide meaningful and relevant data aligned with the objectives of the study. Furthermore, not all graduates were accessible or available during the data collection period; thus, this technique ensured that only qualified and willing participants were included.

Prior to data collection, ethical standards were strictly observed. Informed consent was obtained from all respondents, ensuring that they were fully aware of the purpose of the study, the procedures involved, and their right to voluntarily participate or withdraw at any

time without penalty. Confidentiality and anonymity were maintained by omitting personal identifiers and ensuring that all data were used solely for academic purposes. All collected data were securely stored to prevent unauthorized access. Permission to conduct the study was obtained from the administration of Passi National High School prior to the administration of the research instrument.

Data were collected using a researcher-developed Likert-scale questionnaire designed to measure the level of employability of TVL graduates. The instrument included indicators related to employment status, relevance of employment to specialization, preparedness for work, and challenges encountered in securing employment. Content validity was established through evaluation by a panel of experts and the research adviser. A pilot test was conducted to assess reliability, and Cronbach’s alpha yielded a coefficient of 0.995, indicating excellent internal consistency. The validated instrument was then administered to gather comprehensive data on graduates’ employability.

The distribution of respondents is presented in Table 1, showing equal representation across the graduating cohorts from 2021 to 2024. This distribution enabled comparative analysis to determine whether employability outcomes differed according to year graduated, as well as by age and sex, which were included as key demographic variables in the study.

**Table 1**  
*Distribution of Respondents*

Respondent Classification	No. of Respondents	Percentage
2021 Graduates	75	25%
2022 Graduates	75	25%
2023 Graduates	75	25%
2024 Graduates	75	25%
<b>Total</b>	<b>300</b>	<b>100%</b>

**Instrumentation.** This study utilized a structured survey questionnaire to assess the level of employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates from Passi National High School and to examine

whether demographic characteristics influenced employment outcomes. The instrument was designed to gather information on two primary variables: (1) the demographic profile of the respondents and (2) the level of employability, including indicators such as employment status, relevance of employment to specialization, preparedness for work, and challenges encountered in securing employment.

The questionnaire was researcher-developed and contextualized to reflect the actual experiences of TVL graduates. It was based on established employability indicators drawn from both local and international literature. The items were constructed to capture key dimensions of employability, including job acquisition, skill utilization, work preparedness, and employment challenges.

The instrument consisted of three parts. Part I collected data on the demographic profile of the respondents, including age, sex, and year graduated (2021–2024). Part II measured the level of employability using a five-point Likert scale ranging from 1 (Very Low) to 5 (Very High), capturing respondents perceived readiness, application of skills, and employment experiences. Part III assessed the challenges encountered in securing and maintaining employment, using the same Likert scale to ensure consistency and uniformity in measurement.

To establish content validity, the questionnaire was reviewed by a panel of experts in vocational education and employability, as well as the research adviser. Their recommendations were incorporated to improve the clarity, relevance, and alignment of the items with the study's objectives.

A pilot test was conducted prior to the main data collection to evaluate the reliability and clarity of the instrument. The pilot testing was carried out over a two-week period among 30 TVL graduates from a nearby secondary school who had similar characteristics to the target respondents but were not included in the final

sample. These participants were selected to ensure that the instrument was tested on individuals with comparable educational background and work-related experiences. During the pilot phase, respondents were also asked to provide feedback on the clarity of instructions, wording of items, and overall structure of the questionnaire. Necessary revisions were made based on their responses to enhance the comprehensibility of the instrument.

The data obtained from the pilot test were analyzed using Cronbach's alpha to determine internal consistency. The instrument yielded a reliability coefficient of 0.998, indicating excellent reliability. This result confirmed that the questionnaire items were highly consistent in measuring the intended constructs.

Following the establishment of validity and reliability, the finalized instrument was administered to the selected 300 respondents from Passi National High School. The responses served as the primary data for analyzing the level of employability among TVL graduates and examining its relationship with demographic characteristics. The data collected formed the basis for subsequent statistical analyses, including both descriptive and inferential techniques.

**Table 2**  
*The mean result was interpreted using the following Scale:*

Scale	Remarks
4.50 – 5.00	Very High Employability
3.50 – 4.49	High Employability
2.50 – 3.49	Moderate Employability
1.50 – 2.49	Low Employability
1.00 – 1.49	Very Low Employability

*Source: Lindner and Lindner (2024).*

**Data Analysis.** The data collected in this study were analyzed using both descriptive and inferential statistical techniques to address the research objectives on the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates from Passi National High School and the influence of their demographic characteristics on employment outcomes.

Descriptive statistics were initially employed to summarize and interpret the data. Frequency and percentage were used to describe the distribution of responses, particularly in terms of employment status, relevance of employment, and challenges encountered by the graduates. Mean scores were computed to determine the overall level of employability across key indicators such as work preparedness, skill application, and job relevance. Standard deviation was also calculated to measure the variability of responses, indicating the consistency of employability levels among respondents.

For inferential analysis, One-Way Analysis of Variance (ANOVA) was utilized to determine whether significant differences existed in employability levels across groups based on year graduated (2021–2024). This test was appropriate as it allowed for the comparison of mean scores among more than two independent groups. Additionally, an Independent Samples t-test was employed to examine whether sex significantly influenced employability by comparing the mean scores between male and female graduates.

To ensure statistical rigor, key assumptions underlying the use of parametric tests were examined prior to analysis. The assumption of normality was assessed using the Shapiro-Wilk test and by inspecting skewness and kurtosis values to determine whether the data approximated a normal distribution. Homogeneity of variances was evaluated using Levene’s Test to ensure that the variance across groups was not significantly different. In cases where assumptions were violated, appropriate adjustments such as the use of Welch’s ANOVA were considered to maintain the validity of the results.

All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) version 25.0. A significance level of 0.05 was set as the criterion for determining statistically significant differences. To further strengthen the analysis, effect sizes (e.g., eta squared for ANOVA and Cohen’s d for t-test)

were considered to determine the magnitude of differences between groups, providing a more comprehensive interpretation beyond statistical significance.

Overall, the combination of descriptive and inferential statistics enabled a comprehensive analysis of employability patterns and allowed for the identification of significant differences based on demographic characteristics, thereby ensuring a robust and reliable interpretation of the data.

## RESULTS AND DISCUSSIONS

**Profile of the Respondents in terms of Age, Sex and Year Graduated.** Table 3 shows the demographic characteristics of the respondents in terms of age, sex, and year graduated. In terms of age, the majority of the TVL graduates were 18–19 years old (60%), followed by those aged 20–21 years (20%), 16–17 years (15%), and 22 years and above (5%). This indicates that most graduates fall within the typical age range of Senior High School completers in the Philippines, reflecting the standard progression from secondary education to graduation in the TVL track. The smaller proportion of respondents aged 22 and above may include late completers or those who took longer to finish Senior High School.

**Table 3**  
*Demographic Profile of Respondents by Age, Sex and Year Graduated*

Profile Variable	Classification	Frequency (f)	Percentage (%)
Age (in years)	16–17	45	15%
	18–19	180	60%
	20–21	60	20%
	22 and above	15	5%
Sex	Male	135	45%
	Female	165	55%
Year Graduated	2021	75	25%
	2022	75	25%
	2023	75	25%
	2024	75	25%

Regarding sex, female respondents slightly outnumbered males, comprising 55% of the total sample, while males accounted for 45%. This distribution suggests a relatively balanced representation of both sexes, which allows for

a fair comparison in analyzing employability outcomes between male and female graduates. The slightly higher number of females may reflect the enrollment trends in certain TVL specializations, which often attract more female students.

The distribution of respondents by year graduated was equal across all cohorts (25% each from 2021, 2022, 2023, and 2024), ensuring balanced representation for examining potential differences in employability outcomes among graduates of different years. This equal representation provides a solid basis for statistical comparison and ensures that the findings reflect the experiences of recent graduates over a four-year period.

Overall, the profile of respondents indicates a predominantly young, balanced, and systematically distributed sample, which is ideal for analyzing employability levels and determining whether demographic characteristics such as age, sex, and year graduated influence employment outcomes among TVL graduates.

**Level of Employability of the TVL Graduates when Respondents are Grouped According to the Identified Profile.** This section addresses the research objective: to determine whether the level of employability of TVL graduates differs significantly when grouped according to age, sex, and year graduated.

As shown in Table 4, employability varied across demographic groups. In terms of age, graduates aged 16–17 (Mean = 2.75) and 18–19 (Mean = 2.95) were classified under Low Employability, while those aged 20–21 (Mean = 3.20) reached Moderate Employability. Graduates aged 22 and above (Mean = 2.85) again fell under Low Employability. These findings suggest that employability tends to improve with age up to a certain point, possibly due to increased maturity and initial work exposure. This supports the findings of Sanchez (2023) and Mariano and Tantoco (2023), who reported that younger TVL graduates are often still transitioning—either seeking employment

or pursuing further education—thus limiting immediate employability.

**Table 4**  
*Level of Employability of TVL Graduates Grouped by Profile*

Profile Variable	Classification	Mean	SD	Interpretation
Age (in years)	16–17	2.75	0.41	Low Employability
	18–19	2.95	0.35	Low Employability
	20–21	3.20	0.38	Moderate Employability
	22 and above	2.85	0.40	Low Employability
Sex	Male	2.90	0.39	Low Employability
	Female	3.05	0.37	Low Employability
Year Graduated	2021	3.10	0.42	Moderate Employability
	2022	2.95	0.38	Low Employability
	2023	2.90	0.35	Low Employability
	2024	2.85	0.36	Low Employability

*Legend: 4.50 – 5.00 (Very High Employability); 3.50 – 4.49 (High Employability); 2.50 – 3.49 (Moderate Employability); 1.50 – 2.49 (Low Employability); 1.00 – 1.49 (Very Low Employability)*

However, the lower employability among those aged 22 and above may appear unexpected. This could be attributed to several factors, such as delayed entry into the workforce, job mismatch, or discouragement after unsuccessful job searches. It is also possible that some individuals in this group faced barriers such as limited access to employment opportunities or lack of updated certifications, which may have affected their employability. This highlights that age alone does not guarantee better employment outcomes without continuous skills development and labor market alignment.

In terms of sex, female graduates (Mean = 3.05) demonstrated slightly higher employability than male graduates (Mean = 2.90), although both groups remained within the Low Employability category. This finding aligns with previous studies suggesting that females tend to exhibit stronger soft skills, such as communication, adaptability, and work discipline, which are valued by employers (Mariano & Tantoco, 2023). While earlier studies (e.g., Byrnes et al., 1999 & Dash, et al., 2021) also reported gender-based differences in workplace behavior, the present findings suggest that such differences may exist but are not substantial enough to result in a shift to a higher employability category. This indicates that employability challenges are shared across both sexes, likely due to broader structural and labor market factors.

With respect to year graduated, only the 2021 cohort (Mean = 3.10) achieved Moderate Employability, while graduates from 2022 to 2024 were all categorized under Low Employability. This finding directly supports the hypothesis that year graduated influences employability outcomes. The results are consistent with Yoshida (2025) and Valerio and Accad (2025), who emphasized that earlier graduates tend to have better employment outcomes due to increased opportunities for work experience, internships, and certification acquisition over time.

The lower employability among more recent graduates may be explained by their limited exposure to the labor market and shorter time frame to secure employment. Additionally, some graduates may still be pursuing higher education or undergoing training, which temporarily reduces employment rates. External factors, such as local job availability and economic conditions, may have also influenced these outcomes. This suggests that employability is not only a function of training but also of timing, opportunity, and labor market conditions.

Overall, the findings indicate that while certain groups (e.g., older or earlier graduates) demonstrate relatively higher employability, the majority of TVL graduates fall within the Low Employability category. This supports existing literature which asserts that employability is influenced by a combination of technical skills, soft skills, work experience, and labor market alignment (Jackson, 2015 & Roble, 2021). The results reinforce the need for enhanced work immersion programs, stronger industry linkages, and continuous skills development initiatives to improve employment outcomes among TVL graduates.

Despite the valuable insights generated, several limitations must be acknowledged. First, the study utilized a cross-sectional design, which captured employability at a single point in time and did not account for changes in employment status over time. Second, the use of self-reported data may have introduced response bias, as participants may have

overestimated or underestimated their level of employability. Third, the sample was limited to 300 graduates from a single institution, which may affect the generalizability of the findings to other contexts. Lastly, the use of purposive sampling may have limited the representativeness of the sample, thereby affecting external validity.

These limitations suggest that future studies may consider longitudinal designs, larger and more diverse samples, and the inclusion of employer-based assessments to provide a more comprehensive evaluation of employability.

**Significant Differences in the Employability of TVL Graduates When they are Grouped According to Profile.** This section addressed the research objective of determining whether significant differences exist in the level of employability of Technical-Vocational-Livelihood (TVL) graduates when grouped according to age, sex, and year graduated. The results presented in Tables 5 and 6 indicated that all three demographic variables significantly influenced employability outcomes.

**Table 5**  
*Significant Differences in the Employability of TVL Graduates by Age and Year Graduated (One-Way ANOVA)*

Profile Variable	F-value	p-value	Interpretation
Age (in years)	5.23	0.002*	Significant difference
Year Graduated	4.76	0.003*	Significant difference

*Significant at p < 0.05*

**Table 6**  
*Significant Differences in the Employability of TVL Graduates by Sex (Independent Samples t-test)*

Profile Variable	F-value	p-value	Interpretation
Sex	2.14	0.034*	Significant difference

*Significant at p < 0.05*

The analysis of variance revealed a statistically significant difference in employability across age groups (F = 5.23, p = 0.002), indicating that age significantly influenced employability. Graduates aged 20–21 demonstrated relatively higher employability compared to younger cohorts. This finding is consistent with Mariano

and Tantoco (2023), who reported that older TVL graduates tend to exhibit greater work readiness due to increased maturity and exposure to work immersion or employment-related experiences. Similarly, international studies (Jackson, 2015) have emphasized that accumulated experience and developmental factors contribute to improved workforce adaptability and employment outcomes.

These findings suggest that employability develops progressively rather than immediately upon graduation. Younger graduates may still be in a transition phase, exploring career opportunities or pursuing further education, which may limit their immediate participation in the labor force. This highlights the need for targeted interventions, such as enhanced career guidance and extended work immersion programs, to better support younger graduates in their transition to employment.

Significant differences were also observed when respondents were grouped according to year graduated ( $F = 4.76, p = 0.003$ ), confirming that year graduated influenced employability outcomes. Graduates from earlier cohorts, particularly those who completed their studies in 2021, demonstrated higher employability compared to more recent graduates. This finding aligns with the studies of Roble (2021) and Valerio and Accad (2025), which found that employment outcomes tend to improve over time as graduates gain work experience, acquire certifications, and adapt to workplace demands.

The relatively lower employability among recent graduates may be attributed to limited exposure to employment opportunities, shorter time to secure jobs, and possible engagement in further education or training. Additionally, external factors such as labor market conditions and availability of local employment opportunities may have influenced these outcomes. These results underscore the importance of strengthening post-graduation support mechanisms, including job placement programs and industry partnerships, to facilitate smoother school-to-work transitions.

Furthermore, the results of the independent samples t-test indicated a statistically significant difference in employability when grouped according to sex ( $t = 2.14, p = 0.034$ ), with female graduates demonstrating slightly higher employability than their male counterparts. This finding supports previous research suggesting that female graduates often demonstrate stronger soft skills, such as communication, adaptability, and work discipline, which are highly valued in the workplace (Mariano & Tantoco, 2023). Earlier studies (Byrnes et al., 1999 & Dash, et al., 2021) also documented gender-related differences in behavioral and work-related attributes that may influence employment outcomes.

However, despite the statistical significance, the overall employability levels for both male and female graduates remained relatively low. This indicates that while sex may contribute to differences in employability, broader structural issues such as skills mismatch, limited job opportunities, and insufficient work experience play a more substantial role in shaping employment outcomes.

Taken together, the findings confirmed that age, sex, and year graduated significantly influenced the employability of TVL graduates, thereby supporting the study's hypotheses. More importantly, the results suggest that employability is a dynamic and evolving process influenced by both individual characteristics and external conditions. These findings are consistent with existing literature, which emphasizes that employability is shaped by a combination of technical competencies, soft skills, work experience, and labor market alignment (Jackson, 2015 & Roble, 2021).

Despite the significant findings, several limitations must be acknowledged. The study employed a cross-sectional design, which limited the ability to capture changes in employability over time. The use of self-reported data may have introduced response bias, potentially affecting the accuracy of the findings. Additionally, the sample was limited to 300 graduates from a single institution, which

may restrict the generalizability of the results. The use of purposive sampling may have also introduced selection bias, thereby affecting external validity.

These limitations suggest the need for future research employing longitudinal designs, larger and more diverse samples, and the inclusion of employer-based assessments to provide a more comprehensive evaluation of employability outcomes among TVL graduates.

**Conclusions.** This study found that the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates from Passi National High School was generally low, with only a limited number of graduates reaching a moderate level of employability. The results suggest that employability tends to improve slightly among older graduates and those from earlier cohorts, particularly those aged 20–21 and graduates from 2021. This pattern indicates that time since graduation, maturity, and exposure to work-related experiences such as immersion or short-term employment may contribute to better employment outcomes.

In terms of sex, female graduates showed slightly higher employability compared to male graduates. While the difference was not large, it suggests that female graduates may demonstrate stronger soft skills, adaptability, and workplace readiness, which are important factors in employability. This observation is consistent with related literature indicating that soft skills play a crucial role in successful job placement and workplace performance.

The analysis of year graduated further revealed that earlier graduates generally had better employability than more recent ones. This may be explained by the fact that older cohorts have had more time to seek employment, gain work experience, or pursue additional training and certifications. In contrast, many recent graduates are still transitioning either continuing their studies or exploring job opportunities which affects their immediate employability status.

Overall, the findings show that age, sex, and year graduated are associated with differences in employability among TVL graduates. However, the general outcome points to a common challenge: many graduates are still not fully able to transition smoothly from school to work or maximize the skills they acquired during their training. This suggests that employability is influenced not only by demographic factors but also by access to opportunities and the quality of work-related exposure during and after Senior High School.

In conclusion, while a small portion of TVL graduates demonstrate moderate employability, most remain in the low employability category. This highlights the need for stronger support systems that can better connect technical-vocational education with actual labor market demands. Improving career guidance, strengthening industry partnerships, expanding work immersion opportunities, and enhancing practical training are essential steps toward improving the readiness and employability of future TVL graduates.

**Recommendations.** Based on the findings of this study, several practical and research-based recommendations are proposed to improve the employability of Technical-Vocational-Livelihood (TVL) Senior High School graduates from Passi National High School and similar educational contexts. The results suggest the need to strengthen career guidance and counseling services within schools. A more structured and continuous career orientation program may help graduates better understand available employment pathways, align their skills with industry demands, and prepare for job application processes. Activities such as resume writing workshops, mock interviews, and job readiness seminars may also improve graduates' confidence and employability.

Another important implication is the need to enhance work immersion and practical training opportunities. The findings showed that employability tends to improve with exposure to real work environments; thus, strengthening partnerships with local industries is essential.

Expanding on-the-job training and immersion programs can help students apply technical skills in actual workplace settings, develop professional behavior, and gain experience that is highly valued by employers. The study also highlights the importance of soft skills development as a core component of the TVL curriculum. Communication, teamwork, problem-solving, and adaptability should be more intentionally integrated into classroom instruction and training activities. As supported by the reviewed literature (Mariano & Tantoco, 2023; Byrnes et al., 1999), these competencies play a significant role in employability and workplace success. Enhancing these skills may help address observed gaps among graduates, particularly in work readiness.

In addition, graduates should be encouraged to engage in continuous skills upgrading through short courses, online training, and national certifications. This is particularly important for younger and more recent graduates who showed lower employability levels in the study. Strengthening access to certification programs such as NC II may also improve their competitiveness in the labor market. The findings further suggest the need to strengthen collaboration between schools, industries, and community partners. Such partnerships can provide mentorship opportunities, internships, and potential employment pathways for graduates. More importantly, industry feedback can guide schools in continuously improving their training programs to ensure alignment with current labor market needs.

Schools may also consider implementing a graduate tracking and feedback system to monitor employment outcomes. Regular data collection from graduates and employers can provide valuable insights into program effectiveness and help identify areas that require improvement in curriculum delivery and training approaches. Although sex differences were observed in employability outcomes, the results indicate that both male and female graduates face similar challenges in securing employment. Thus, equal access to training, internships, and employment opportunities

should be ensured to promote fairness and inclusivity in TVL programs.

At the policy level, educational institutions and policymakers may consider institutionalizing employability enhancement programs within the TVL track. This includes providing sustained funding for work immersion, strengthening school-industry partnerships, and supporting career development initiatives as integral components of technical-vocational education. While the findings provide meaningful insights, caution should be exercised in generalizing the results beyond the study context. Since the study was conducted in a single institution, the employability patterns observed may not fully represent TVL graduates in other schools or regions, where labor market conditions and program implementation may differ.

For future research, several areas are recommended. First, longitudinal studies may be conducted to examine the long-term employment trajectories of TVL graduates. Second, future studies may explore the impact of work immersion, certifications, and soft skills training on employability in greater depth. Third, additional variables such as entrepreneurial skills, socio-economic background, and digital literacy may be considered to provide a more comprehensive understanding of employability. Finally, comparative studies between graduates who enter the workforce immediately and those who pursue higher education may offer valuable insights into different pathways toward employment readiness.

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