



Technical vocational students' higher learning institution preference and level of academic and skills preparedness

¹Erwin P. Navarez & ²Mary Cherry Lynn D. Tabernilla

Abstract

Vocational education is increasingly recognized for its role in creating gainful employment opportunities and stimulating economic growth. As such, this paper studied the higher learning institution preferences of the technical vocational students and their academic and skills readiness. Specifically, this study focused on the senior high school students enrolled in the technical and vocational livelihood track at Buruanga Vocational School and their regards on the growing importance of vocational education in job creation and national support. Utilizing a descriptive-correlational research design, this research examined the relationship between academic performance, skills preparedness, and higher learning institution preference 50 purposively selected completers as grounded on Vocational Identify Theory to understand how students perceived different career alternatives. Each student responded to self-report survey questionnaire that revealed academic preparedness and interest in various institutions. The results demonstrated a significant relationship between their readiness and preference for the institution. Additionally, the graduates indicated that their performance and literal understanding were lacking compared to their academic track. Hence, the outcomes confirmed that schools need to check their program levels and outreach and plan to offer higher-level services like the high school career guidance programs. The results provide hallmark-witted assortment preparations for strengthening undergraduates for high-level activities, thus preparing vocational schooling to attain a degree.

Keywords: *higher learning institution preference, vocational identity theory, technical vocational schools, academic performance, skills preparedness*

Article History:

Received: May 21, 2024

Accepted: September 27, 2024

Revised: September 24, 2024

Published online: September 30, 2024

Suggested Citation:

Navarez, E.P. & Tabernilla, M.D. (2024). Technical vocational students' higher learning institution preference and level of academic and skills preparedness. *Industry and Academic Research Review*, 5(1), 251-273. <https://doi.org/10.53378/iarr.924.133>

About the authors:

¹Corresponding author. Master of Arts in Education, Teacher III, Buruanga Vocational School, Buruanga, Aklan, Philippines. Email: erwinnavarez27@gmail.com

²Doctor of Education, Education Program Supervisor, Schools Division Office – Aklan, Numancia, Aklan, Philippines.

**This paper is presented at the 5th International Conference on Multidisciplinary Industry and Academic Research (ICMLAR)-2024*



© The author (s). Published by Institute of Industry and Academic Research Incorporated.

This is an open-access article published under the Creative Commons Attribution (CC BY 4.0) license, which grants anyone to reproduce, redistribute and transform, commercially or non-commercially, with proper attribution. Read full license details here: <https://creativecommons.org/licenses/by/4.0/>.

1. Introduction

Technical vocational (TechVoc) programs are designed for one aspect – skills development. These programs aim to transfer students' knowledge and practical skills in disciplines and, thus, offer an alternative path to more academic and diverse jobs and professions (Gabia, 2023). TechVoc is creating jobs and significantly contributing to developing countries (Edralin & Pastrana, 2023). However, as students near the end of their senior high school programs, deciding which higher learning institutions to enter becomes challenging in their academic and professional journey (Lagajino et al., 2016). Research shows that students are not academically and skills prepared to go to higher education (. Specifically, they are concerned about their academic performance and skills relative to the higher learning institutions' standards. Some TechVoc students are anxious about taking entrance examinations because they may fail.

According to Ramos (2018), there is a gap between the SHS TechVoc students' performance and skills readiness on their decision-making process when selecting a higher learning institution. Although technical and vocational programs are supposed to prepare students for practical skills significantly connected to jobs and country development, there is little research examining the transfer of skills to the expectations or standards of higher education institutions (Abbas, 2020). More specifically, the gap exists in understanding what, if any, relationship exists between vocational training practical skills and the theoretical and critical thinking expectations at educational institutions and whether this gap affects students' confidence and academic success. Additionally, uncertainty regarding future educational choices exists due to a lack of adequate career planning for students in vocational programs (Gati & Kulcsár, 2021).

In the local context, the Buruanga Vocational High School often experiences a notable gap compared to traditional higher learning institutions regarding academic performance and skills preparedness. This gap is predominantly based on two educational approaches: while vocational schools are designed to provide certain applicants with the necessary practical skills and on-the-job training, higher learning institutions are geared to a more diverse academic curriculum (Pathak et al., 2023). Thus, according to Herro et al. (2023), vocational schools' successful students may acquire higher levels of practical and hands-on skills. In contrast, the quality or the depth of their theoretical knowledge or critical thinking and reasoning expertise can be inferior to that of college or university graduates. This affects their ongoing success in academic performance. Still, it may be fatal for their future career prospects: ultimately, neither the level nor the type of education they

had obtained allows them to be competitive in a market with fast-changing demands (Schots et al., 2023).

Therefore, this study aims to identify the factors influencing vocational students' decisions when choosing higher education institutions. Since the study results were essential for educational planning and policymaking, it was necessary to explore whether the preference for certain institutions was correlated with the student's academic achievements and the value of skills. The study also intended to determine whether vocational students were prepared to choose and study in high schools and universities in terms of academic and practical skills. It was necessary to close the gap and provide vocational education students with additional support to succeed in their higher learning.

This research aimed to determine the SHS TechVoc students' higher learning institution preferences in relation to the level of acquired academic performance and skills preparedness anchored to the learning competencies of the Grade 12 technical and vocational livelihood track in Buruanga Vocational School graduates. Specifically, the study sought to determine the academic performance of the Grade 12 SHS technical and vocational livelihood track graduates and their skills preparedness as to automotive, electrical installation and maintenance, cosmetology and food trades. The study also assessed the graduates' higher education institution preferences.

2. Literature review

2.1. Vocational Identity Theory

The study was grounded in Vocational Identity Theory (VIT) by Donald Super (1996). This VIT centered on understanding the formation and development of one's professional or occupational identity (Fusco et al., 2022). It's about how individuals came to understand and give meaning to their vocational roles and how they integrate into their broader sense of self (Afanasyev et al., 2019). This theory explored several aspects, including vocational choice, why people make the career decisions they do; development of vocational identity, how people come to understand and define themselves in relation to work; and the role of experiences, aspirations, interests, and social and cultural factors that influence vocational identity (Creed et al., 2020).

From this study's inquiry, vocational identity formation encompasses the following factors: personal interests, skills, values, cultural background, socioeconomic status, and life history. Consequently, from Super's comprehensive theory of career development, the theory of vocational identity has been constructed, which serves as a guiding principle for expounding how

individuals understand, select, and retain postures at work over a life span. The theory spotlights the significance of a person's self-concept for vocational selection and the constant interchange between a person and new environmental facts shaped by a person's occupational identity forms.

2.2. Technical Vocational Program and Students

The Philippines' Technical and Vocational (TechVoc) education and training system has evolved through the years, coping with the pressing demands of a dynamic economy and society. Specifically, this research investigates, identifies, and correlates the related literature reviews and studies to put together the related studies in understanding the TechVoc environment in the Philippines, the profile of the TechVoc learners, including the challenges and opportunities, and its impact on the socio and economic fabric of the country.

TechVoc in the Philippines has its beginnings dating back to the era of Spanish colonization. According to Kjeldsen (2019), vocational education was prevalent under the Spanish regime and was commonly linked to the various religious missions. However, it was during the time of American colonization that modern TechVoc was introduced. The American colonial era ranged from 1898 to 1946, and the first educators, known as Thomasites, brought in a secular curriculum that involved teaching agricultural and vocational subjects (Francisco, 2015). After World War II, the emphasis on TechVoc grew. The Philippine government viewed vocational education as a vehicle for national development in light of the country's reconstruction and industrialization (Mudondo, 2023; Yang & Patrick, 2023). The significant impact of 1982 (Philippine Congress, 1982) further solidified TechVoc's status, establishing it as an official component of the education system (Diolingo & Dioso, 2019).

In recent decades, the Philippine government has accorded TechVoc a high priority. The Technical Education and Skills Development Authority (TESDA) was created in 1994 in response to the need for a centralized organization to administer technical education and skills development (Alin & Euldán, 2023). In addition to policy formulation, planning, and technical education and training, TESDA is responsible for certification and industry collaboration. The proliferation of TESDA-accredited institutions reflects the increasing popularity of TechVoc programs, such as computer systems servicing, cooking, and electrical installation and maintenance (Orbeta, 2021).

The demographics of TechVoc students in the Philippines range widely. Some attend right after high school, while others are working adults attempting to enhance their skills or switch careers. Irrespectively, TechVoc is a second chance for many to attain employable skills in a

shorter period and at a lower cost than a standard four-year degree. According to Alampay and Garcia (2019), TechVoc students frequently come from low- to middle-income households. This becomes a no-brainer: these levels of undergraduates have to make decisions between pursuing their education and helping their families make ends meet. In addition to that, technical and vocational students face several unusual problems when choosing a higher learning institution, mainly because technical and vocational education is fundamentally more specialized than “higher learning.” Technical and vocational education focuses on specific skills and vocations (Barrera-Osorio et al., 2023) rather than broader, more general, and theory-based curricula (Okolie et al., 2021). From a student’s perspective, knowing and appreciating that all university students end up in common areas during their higher-level learning paths is difficult.

The TechVoc faces the following challenges in the Philippines: first, mismatched skills among TechVoc graduates. The disparity between the skills offered by TechVoc institutions and those required by employers is a recurring issue. The dynamic character of industries and labor markets makes it difficult for TESDA to resolve this divide (Salape & Cuevas, 2020). Secondly, quality control among TechVoc institutions in the Philippines is important. An assessment of the quality of an individual program is vital to ensuring that all the TechVoc institutions produce comparable outcomes; the reality on the ground has shown it is still a challenging task. Even though the TESDA accreditation itself was intended as an indication of excellence, variations in school structure, approach to the subject, ability of teachers, and other factors could produce widely dissimilar results (Ancho & Dewi, 2021). Lastly, the perception of people in TechVoc courses. Even though it is also important, the TechVoc education stream is often regarded as a secondary exercise to university. The belief that this “isn’t top of the list” or “last option” characterizes negative thinking that discourages students and tarnishes TechVoc’s reputation (Daleon & Namoco, 2023).

The fact that TechVoc graduates encounter challenges does not negate the possibilities and ramifications of undertaking these courses. Because the Philippines is becoming a hub for BPO and services industries, there is a huge opening for TechVoc programs to operate in the industry, ranging from customer service to IT support (Awi et al., 2022). Similarly, active collaboration with industry can result in curriculum co-creation, ensuring that the skills taught align with industry requirements (Alinea & Alinea, 2022). When executed effectively, TechVoc can potentially lift many people out of destitution. It provides a direct route to employment, making it a vital component of the Philippines' socioeconomic strategy.

2.3. HS Technical Vocational and Livelihood Tracks

The Senior High School (SHS) curriculum in the Philippines is designed to refine students' skills following their intended career paths. The Technical Vocational and Livelihood (TVL) track is designed to provide students with skills development at the middle school level. Some or necessary courses within the TVL specialization include automotive, electrical installation and maintenance, cosmetology, and food trades. This study examines the relevant literature on these courses to understand their relevance and significance.

Automotive. Students on the TVL path get training that prepares them for possible professions in the automobile maintenance business via the automobile program. Garcia (2020) pointed out how essential it is for students in this subject to have both academic knowledge and practical experience. As a direct result of the rising technical sophistication of today's automobiles, there is a growing need for highly qualified automotive mechanics. The automotive course equips students with the technical knowledge required to maintain and repair vehicles and imparts skills related to automotive technology and design (Legg-Jack & Alant, 2022). The challenges automotive students face, especially regarding the rapid technological advancements in the automotive industry (Moller & Haas, 2019). However, students can grasp future opportunities in the evolving market with adequate training and exposure.

Electrical Installation and Maintenance. Students who participate in the electrical installation and maintenance course get the skills necessary to meet the challenges faced in the electrical industry. Given the inherent dangers connected with electrical work, there is a rising need for specialists with the technical know-how to understand the safety regulations and procedures in place (Dela Cruz, 2019). In this contemporary time, proper electrical installation and maintenance are essential. According to Malik (2020), electrical students learn how to build electrical systems and preventative maintenance on such systems. This helps to ensure that the systems will last for a long time and remain safe. While there is always a need for qualified electricians, Sun et al. (2019) highlight how important it is to stay current with the latest electrical regulations and technology.

Cosmetology. Cosmetology courses must present the most recent experiences in the market due to the constantly changing world of beauty and personal care. Ramos (2021) said “*that there is a delightful coexistence of art and science in cosmetology*”. This is evident since the TVL program subtly integrates creative and scientific ideas into its curriculum. Cosmetology has grown remarkably due to the proliferation of the global cosmetic business. Cosmetology professionals

are talented in several areas, such as hair, cosmetics, and skincare, making them incredibly versatile (Coughaln & Murphy, 2023). The profit potential has made Lasco and Hardon (2020) insist on their argument regarding the need for continued education due to changes in the beauty sector to help maintain the extensive profit margins.

Food Trades. Food trades cover various skills, from culinary arts to food processing. According to Mercado and Lim (2018), these courses emphasize hygiene, nutrition, entrepreneurial concepts, and culinary techniques. Given the multidimensional character of the culinary industry, such comprehensive training is essential. From the most basic cookery to advanced culinary arts, the skillset learned in food trades is broad. Asian Development Bank (2021) stated, "*encouraging creativity and technical expertise to enable students in all facets of culinary immersion are stated.*" Farhan (2023) stated, "*there are always choices and stiff rivalry in the culinary business. There is one constant: novelty and expertise will always be required.*"

2.4. SHS TVL Academic Performance and Skills Preparedness

The performance and preparedness of students in the DepEd SHS TVL course are of focus since they significantly impact the student's success in their future careers and academic journeys (Department of Education, 2018). The SHS TVL track is an initiative of the DepEd introduced in the K to 12 system in the Philippines. It provides a curriculum that fits students predisposed to middle-level skills development. The track, as developed by DepED, best educates students on job preparedness and is organized around job-focused skill training aimed at specific jobs. Several studies have been conducted to show student performance in TVL. For example, Cruz (2020) found that most of the students in the TVL group performed 'fair,' indicating the need to improve the teaching mode to suit their specific learning.

Skills preparedness is the primary objective of the TVL track. Santos (2019) emphasized that while academic knowledge is essential, the implementation of this knowledge in real-world contexts, particularly in the technical and vocational fields, is crucial for students' success. Many factors influence the academic performance and skill readiness of students. These factors are the quality of instruction, learning materials, school facilities, and the student's circumstances (Dela Cruz & Reyes, 2021). Knowledge of these factors can guide efforts to improve performance. The teachers of these students have a major impact on their academic performance and skill preparedness. There is an opportunity to help students even more if teachers are provided with more professional development to help them be successful (Mendoza, 2022). For a given

educational effort, the aim is for TVL graduates to be prepared for a job or further education. Many studies reveal that many TVL graduates are employed shortly after completion since they have the required capabilities, but long-term employment is still lacking (Navarro, 2019). Many studies compare the performance of TVL students to those of students in the other courses. The previous statement (Gomez & Rosales, 2020) always shows that TVL students lag behind traditional academic measures. However, it further stated that TVL students outperformed in practical applications and skill-based areas. As previous study findings show, academic performance, and skill preparedness results are very relevant to policymakers. Hence, continuous assessment and re-alignment of the TVL curriculum can ensure its effectiveness and efficiency (Torres, 2021).

2.5. Higher Learning Institution Preferences of SHS TVL students

Transitioning to a unified K-12 educational system has led to some important implications for secondary education. One prominent example is the SHS courses. The TVL is a specialized track provided to enable students to work. Consequently, students across this specialization and their preferences for higher educational institutions deserve special attention. More specifically, Smith (2019) explored the TVL track of students' education, claiming that in many cases, its students' motivation and pathways differ from those in other SHS tracks. Indeed, TVL is highly specific — many academies are designed to enable students to attend college. However, TVL was designed to prepare students for a job almost immediately after graduation, and some students choose the career path just after SHS.

Parker and Lim (2020) observed a sizeable proportion of TVL students continue to aspire to pursue higher education. Their research centered on the determinants of these aspirations and uncovered a complex interaction between family, socioeconomic context, and individual aspiration. Specifically, institutions that offer specialized courses, a hands-on learning approach, and direct industry connections appear more appealing to TVL students. Jones and Reyes (2021) surveyed TVL students' preferences for higher education institutions. The results indicated a significant preference for institutions with partnerships with regional businesses, apprenticeship opportunities, and a reputation for producing job-ready graduates. Similarly, Thompson et al. (2022) incorporated the roles of peers and school counselors in the choice of TVL students. Their study implies that many TVL students attended higher education institutions due to the general availability of guidance from their peers. There was an overall trend of higher enrollment where TVL students from schools with good guidance and counseling took higher education. Thus,

despite TVL students' initial goal to get a job, some still wanted to pursue higher education. Additionally, their selection of an institution is based more on a combination of practicality and school relations.

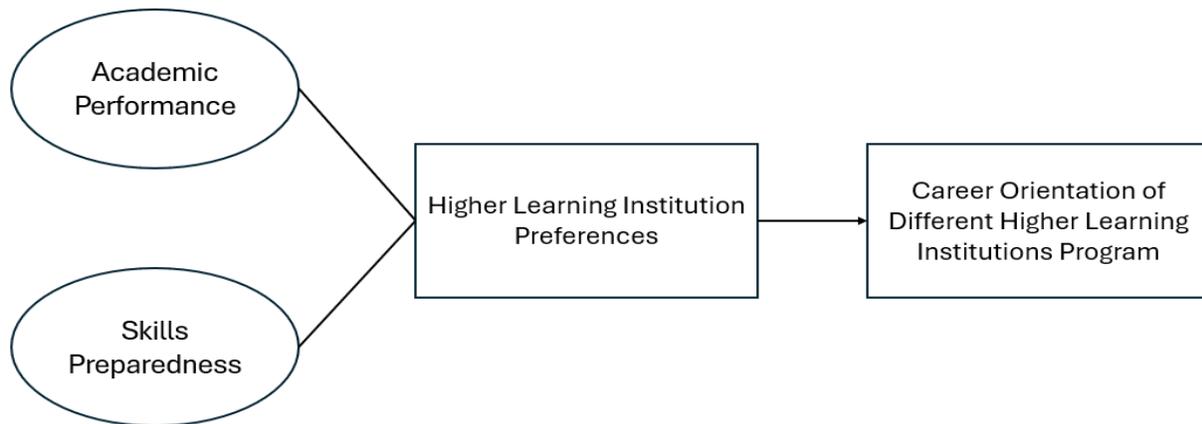
3. Methodology

3.1. Research Design

This study employed the descriptive-correlational research design, in which the SHS TVL graduates' academic performance or skills preparedness was correlated to the higher learning institution's preferences. Descriptive correlational design is employed in research studies that sought to provide a static representation of situations and establish the relationship between different variables (IvyPanda, 2023).

Figure 1

The conceptual framework of the study



As illustrated in figure 1, the predictors are limited to the academic performance and skills preparedness of SHS TVL graduates to determine their preferences for higher learning institutions, which is considered the outcome of their decision to continue their education or career.

3.2. Sample and Sampling Technique

The participants of the study were the former students of Buruanga Vocational School's SHS TLV tracks from the school year 2022 – 2023 graduates who were previously enrolled in (1) automotive, (2) electrical installation and maintenance, (3) cosmetology, and (4) food trades courses. They were selected using the stratified-purposive sampling technique, in which the

stratified sampling technique was utilized first, followed by the purposive sampling technique. A stratified-purposive sampling technique was utilized to determine the study's sample size. In the initial steps, the population of SHS TVL graduates was divided into four course-based strata: automotive, electrical installation and maintenance, cosmetology, and food trades. Each respondent was reflected proportionately to each graduated percentage, ultimately totaling 50 sampled respondents. In the sampling selection, purposive sampling was used to select respondents who reflected predetermined criteria in the context of the study and its objectives, mindful of a representative and purposeful sampling design. Table 1 shows the stratified sampling processes used to determine the number of respondents.

Table 1

Determining the number of respondents using stratified sampling technique table caption

SHS TVL Course	(Expected Respondents) = 50		
	No. of Graduates	Percentage of Distribution	Allocated No. of Respondents
Automotive	43	34%	17
Electrical Installation & Maintenance	37	30%	15
Cosmetology	19	16%	8
Food Trades	25	20%	10
TOTAL	124	100%	50

As shown in table 1, there were 50 research respondents with a corresponding allocated number of respondents in every SHS TVL course. To determine the following respondents in each course, the teacher-researcher monitored the SHS TVL graduates of the class of 2023, who were purposefully selected based on the desired number of respondents allotted to each course and the inclusion criteria. The inclusion criteria for the respondent's selection included the SHS TVL graduated track and the higher learning institutions enrolled.

3.3. Research Instruments

The teacher-researcher employed the researcher-made survey questionnaire through an online Google form and face-to-face administration. This survey questionnaire was composed of four parts: (1) graduates' academic performance, (2) skills preparedness, and (3) the higher

learning institution preferences. Parts 1 and 2 were the personal data information, while parts 3 and 4 utilized the Likert-scaled behavioral segmentation survey questionnaire.

The teacher-researcher invited an expert panel of evaluators to evaluate the content and construct validity of the research instrument as part of the validity testing. Similarly, to test the reliability of the research instrument, the teacher-researcher conducted a pilot test to evaluate the consistency of the survey questionnaire. In addition, Cronbach's Alpha was utilized to assess the internal consistency of the survey questionnaire to ensure its reliability.

3.4. Data-gathering Procedures

Before data collection, permission to conduct the study within schools was obtained from the Schools Division Superintendent of the Division of Aklan and the District Supervisor of Buruanga. Furthermore, permission was also sent to the Principal of Buruanga Vocational School. Then, the 50 respondents were given a letter of informed consent explaining the study's objective and the extent of their participation.

In data collection procedures, the teacher-researcher employed face-to-face and online survey administration. During the face-to-face survey, the respondents were given an in-print survey questionnaire while the shared link of the Google Form survey questionnaire was shared via Facebook messenger for the online survey. This face-to-face and online survey was validated and quality-assured by an expert panel of evaluators to the identified potential research respondents. They were given ample time to read and reflect on their answers. As soon as all desired respondents answered the questionnaire, the data were tallied and collated for data analysis and interpretation.

3.5. Data Analysis

Since the study employed a descriptive-correlational research design, two (2) statistical procedures were used: descriptive statistics and inferential statistics. The frequency counts, percentage, mean, and standard deviation were utilized in descriptive statistics. The Spearman-Rho test, a non-parametric statistical treatment for the correlational study, was employed because the study did not satisfy all the assumptions for the parametric test (Derrick et al., 2019). In addition, the Statistical Package for Social Sciences (SPSS) software processed and solved the data using powerful data visualization tools used to present data clearly and concisely.

4. Findings and Discussion

The study utilized the frequency listing as the statistical tool in descriptive statistics to determine the acquired academic performance of the Grade 12 SHS TVL track graduates. Table 2 shows the academic performance of SHS TVL track graduates with their mean general average with the corresponding verbal description (DO 8, s. 2015).

The study on the academic performance and skills preparedness of Grade 12 TVL track graduates at Buruanga Vocational School revealed notable achievements and a high level of preparedness across four courses: automotive, electrical installation and maintenance (EIM), cosmetology, and food trades. The automotive and EIM courses showcased many students achieving 'outstanding' and 'very satisfactory' grades, underscoring the effectiveness of the teaching methodologies and student dedication.

Table 2

Academic performance of SHS TVL track graduate

Graduates	Acquired Academic Performance					Total	General Average	Verbal Description
	90-100	85-89	80-84	75-79	Below 75			
Automotive	9	8	0	0	0	17	93.00	Outstanding
EIM	11	4	0	0	0	15	92.87	Outstanding
Cosmetology	9	0	1	0	0	10	93.70	Outstanding
Food Trades	6	2	0	0	0	8	93.00	Outstanding
Total	35	14	1	0	0	50	93.14	Outstanding

Legend: DO 8, s. 2015: 90-100 (Outstanding), 85-89 (Very Satisfactory), 80-84 (Satisfactory), 75-79 (Fairly Satisfactory), and Below 75 (Did Not Meet the Expectations). EIM (Electrical Installation and Maintenance).

Conversely, the cosmetology and food trades courses displayed a more varied performance, with a notable number of top performers in cosmetology but fewer in food trades, suggesting course-specific challenges and the impact of teaching methods and curriculum design on student success. In terms of skills preparedness, students across all courses showed a good level of preparedness (Garcia-Aracil et al., 2021), with cosmetology students ranking highest in terms of being 'very prepared'. These findings highlight the overall commendable academic prowess and preparedness for future careers among the TVL track graduates (Lim, 2021), while also suggesting the need for further exploration into factors influencing student success and curriculum effectiveness (Corcoran et al., 2018).

The study utilized frequency and mean as descriptive statistical tools to determine the skills preparedness of Grade 12 SHS TVL track graduates. Table 3 shows the skills preparedness of the SHS TVL track graduates with their weighted mean on the level of preparedness with the corresponding verbal description (Nolasco et al., 2015).

Table 3

Skills preparedness of SHS TVL track graduates

Specialization	Skills Preparedness					Total	Mean	Verbal Description
	1	2	3	4	5			
Automotive	0	1	2	3	5	17	3.98	Prepared
EIM	0	0	3	8	4	15	4.02	Prepared
Cosmetology	0	0	1	2	7	10	4.57	Very Prepared
Food Trades	0	0	2	4	2	8	3.80	Prepared
Total	0	1	8	17	18	50	4.09	Prepared

Legend: Level of Preparedness (Nolasco et al, 2015): Not at all prepared (1.0 - 1.80), Slightly Prepared (1.81 – 2.60), Moderately Prepared (2.61 – 3.40), Prepared (3.41 – 4.20), and Very Prepared (4.21 – 5.00). EIM (Electrical Installation and Maintenance).

The study across different tracks for Grade 12 SHS TVL track graduates—automotive, EIM, cosmetology, and food trades—revealed a generally positive outcome in preparedness levels, with most graduates being 'prepared' or 'very prepared'. This suggested that the curricula were largely effective, though varied across disciplines regarding the proportion of graduates fully prepared for industry demands. Automotive and EIM tracks showed effectiveness with room for improvement to achieve 'prepared' status for all, indicating potential curriculum gaps. Cosmetology stood out for its high effectiveness of 'very prepared', while food trades highlighted the need for focused curriculum enhancements with the lowest weighted mean. Overall, according to Brillantes et al. (2019), the TVL program was successful in preparing students, but continuous improvement and adaptation to industry changes were deemed necessary to elevate all students to the highest preparedness level, emphasizing the importance of continuous curriculum development, personalized teaching methods, and stakeholder feedback (Peñarendonda, 2023).

The study utilized frequency and mean as statistical tools in descriptive statistics to determine the preference for higher learning institutions for Grade 12 SHS TVL track graduates. Table 4 shows the higher learning institution preferences of SHS TVL track graduates of their weighted mean with corresponding verbal descriptions (Pantaran, 2018).

Table 4*Higher learning institution preferences of SHS TVL track graduates*

Specialization	HLIC Preferences					Total	M	Verbal Description
	1	2	3	4	5			
Automotive	0	1	4	8	4	17	3.95	Agree
EIM	0	1	4	7	3	15	3.83	Agree
Cosmetology	0	1	1	2	6	10	4.40	Strongly Agree
Food Trades	0	1	2	3	2	8	3.79	Agree
Total	0	4	11	20	15	50	3.99	Agree

Legend: Level of Preferences (Pantaran, 2018): Strongly Disagree (1.0 - 1.80), Disagree (1.81 – 2.60), Neutral (2.61 – 3.40), Agree (3.41 – 4.20), and Strongly Agree (4.21 – 5.00). EIM (Electrical Installation and Maintenance).

The results highlighted the varying aspirations and challenges students face toward higher education. Automotive graduates preferred higher education, though some were discouraged, pointing to a need for better guidance. EIM students displayed diverse opinions, necessitating broader support from educational institutions. Cosmetology graduates, with the highest enthusiasm for further education, likely saw clear benefits or had strong personal career aspirations. Food trades students' preferences suggested the need for personalized guidance to navigate career opportunities. Overall, TVL track students generally leaned towards higher education (Briones & Rubi, 2021) with a mean score of 3.99, but the mix of encouragement levels across fields underscored the crucial role of tailored support and counseling to address each group's unique needs and ensure equitable access to higher education opportunities (Kezar et al., 2023).

The Spearman's rank correlation was utilized because three of the assumptions for the parametric test were violated (Zimmerman & Zumbo, 2014): 1) utilizing non-probability sampling technique; 2) the three variables were measured on an ordinal scale; and 3) the three variables had no linear relationship using a matching pair. Thus, the statistical tool was utilized to assess the relationship between academic performance or skills preparedness and higher learning institution preferences by matching the Grade 12 SHS TVL graduates. The results showed that there was a negative correlation between the SHS TVL students' academic performance and the higher learning institution preferences, which was not statistically significant ($r_s(50) = -0.138, p = 0.34$). However, the results also showed that there was a strong, positive correlation between the SHS TVL students' skills preparedness and the higher learning institution preferences, which was statistically significant ($r_s(50) = 0.844, p < 0.001$).

Table 5

Spearman Rank correlation between academic performance, skills preparedness, and higher learning institution preferences

	AC	SP	HLI Preference
AC		0.36	0.34
SP	0.36		0.000***
HLI Preference	0.34	0.000***	

Legend: AC (Academic Performance), SP (Skills Preparedness), & HLI (Higher Learning Institution) Preferences.

*** $p < 0.001$

The study on the post-graduation trajectories offered new perspectives on their preferences for higher education institutions, challenging prior assumptions about the influence of academic performance on these decisions (Cardinas, 2020). Contrary to expectations, no significant correlation was found between academic achievements and university choices, suggesting that factors like personal interests, geographic location, and financial considerations play a crucial role in such decisions (Kano et al., 2020). Instead, a significant relationship was observed between the skills preparedness of SHS TVL graduates and their preferred institutions, highlighting the importance of practical skills in shaping educational choices (Schunn, 2018). This revelation sparked debates among educators and policymakers, with some viewing it as evidence of TVL programs' effectiveness in preparing students for industry-relevant roles and others seeing it as part of a broader shift towards valuing practical skills over academic metrics in the education sector (Pregoner & Nabuya, 2020).

As Grade 12 students in the SHS TVL track prepare for their transition to the professional world or further education, this study proposes a comprehensive project to guide them in aligning their skills with industry and higher education demands. This initiative will include workshops, career counseling, seminars with industry and academic counselors, and a mentorship program connecting students with experienced professionals and alumni. Through collaborations with institutions for site visits and internships, students will gain firsthand experience of potential workplaces or universities, broadening their horizons and empowering them to make well-informed decisions about their future (Sides & Mrvica, (2017). This project aims to bridge the educational gap, facilitating a smooth transition for students into their next life phase, whether in the workforce or continued education (Wilson et al., 2016), by leveraging the support of the Buruanga Vocational School administration.

5. Conclusion

The study on the Grade 12 graduates who opted for the TVL track as a specialty demonstrates their outstanding academic performance in diverse specialties. The findings proved the success of the TVL curriculum and teaching approaches, which lay the groundwork for strong education and ensure the maintenance of high standards regardless of the major. The research findings on the skills preparedness of Grade 12 SHS TVL graduates acknowledge that the curriculum adequately equips the students with both the requisite technical and soft skills to be work-ready. As such, the hands-on training and the curriculum's concomitance with industry needs have a far-reaching positive effect on the graduates' job readiness and confidence, essential to flourishing in any area and developing the corresponding skills.

The study provides deep insights into the SHS TVL graduates' higher education preferences. It is clear from the review that what influences an individual's decision is a set of numerous practical and personal factors, such as the reputation of the institutions, the availability of courses offered, the distance to it, financial perspective, ethnic component, faculty, and support services. These preferences tend to have a practical, career-oriented dimension, and higher education institutions should, therefore, become more attentive to practical considerations to target vocational students.

The identified post-graduation pathways analysis for Grade 12 SHS TVL students demonstrates that higher education choice is not dependent singularly on academic assessment but primarily on personal interest and practical discipline. One could argue that such a conclusion opposes the concept that academic results are the key indicators for higher education and implies a more practical-favoring approach.

The proposed comprehensive project for Grade 12 SHS TVL students will help link education with future professional careers and further education. Overall, the project ensures a seamless change for students from in-class to professional and higher education while providing them with essential skills and experience for a successful career or academic life.

References

- Abbas, J. (2020). HEISQUAL: A modern approach to measure service quality in higher education institutions. *Studies in Educational Evaluation*, 67, 100933. <https://doi.org/10.1016/j.stueduc.2020.100933>
- Afanasyev, V. V., Ivanova, O. A., Rezakov, R. G., Afanasyev, I. V., & Kunitsyna, S. M. (2019). Organizational environment for the school children's professional identities: Establishing, modelling, efficiency expectations and long-term development. *International Journal of Civil Engineering and Technology*, 10(2), 1612.
- Alampay, L.P., Garcia, A.S. (2019). Education and Parenting in the Philippines. In: Sorbring, E., Lansford, J. (eds) *School systems, parent behavior, and academic achievement. Young people and learning processes in school and everyday life*, 3. Springer, Cham. https://doi.org/10.1007/978-3-030-28277-6_7
- Alinea, J. M., & Alinea, J. (2022). Bachelor of technical teacher education versus bachelor of technical-vocational teacher education: A comparative analysis of technical teacher education curricula. *Interdisciplinary Research Review*, 17(5), 18–24. <https://ph02.tci-thaijo.org/index.php/jtir/article/view/246548>
- Alin Jr, M. A., & Euldan, F. P. (2023). Strengthening the role of TVET trainer during the new normal. *European Journal of Innovation In Nonformal Education*, 3(9), 83-94. <http://inovatus.es/index.php/ejine/article/view/1960>
- Ancho, I., & PF, K. A. P. D. (2021). Philippine qualifications framework and South Korea's new Touthern policy: Towards quality Tech-Voc education. *Jurnal Penjaminan Mutu*, 7(1), 53-61. <https://doi.org/10.25078/jpm.v7i1.1953>
- Asian Development Bank (2021). *Technical and vocational education and training in the Philippines in the age of industry 4.0*. <http://dx.doi.org/10.22617/TCS210084>
- Awi, E., Calasin, R. C., & de Guzman, R. (2022). What now? The senior high school graduates' curriculum exit. *Luz y Saber*, 15(2), 31-41.
- Barrera-Osorio, F., Kugler, A., & Silliman, M. (2023). Hard and soft skills in vocational training: Experimental evidence from Colombia. *The World Bank Economic Review*, 37(3), 409–436. <https://doi.org/10.1093/wber/lhad007>
- Brillantes, K. D. B., Orbeta, A. C., Francisco-Abrigo, K. A., Capones, E. M., & Jovellanos, J. B. (2019). *Status of senior high school implementation: A process evaluation (No. 2019-13)*. PIDS Discussion Paper Series, <http://hdl.handle.net/10419/240964>

- Briones, M. A. P., & Rubi, R. B. (2021). Course preference of college entrants: Basis for new program offerings. *Asia Pacific Journal of Educational Perspectives*, 8(1).
- Coughaln, C., & Murphy, C. (2023). A research agenda for beauty and spa education. *INTED2023 Proceedings*, 1711-1716. <https://doi.org/10.21125/inted.2023.0485>
- Creed, P. A., Kaya, M., & Hood, M. (2020). Vocational identity and career progress: The intervening variables of career calling and willingness to compromise. *Journal of Career Development*, 47(2), 131-145. <https://doi.org/10.1177/0894845318794902>
- Cruz, J. (2020). The academic prowess of technical-vocational students. *Journal of Philippine Educational Studies*, 5(2), 123-137.
- Daleon, J. D., & Namoco, S. O. (2023). Determinants of instructional technology of Tech-Voc educators in a state university in Northern Mindanao, Philippines. *Sci.Int.(Lahore)*, 35(2), 131-136.
- De Guzman, M. P. V., Cristobal, E. C. (2021). Work readiness of technical vocational livelihood - home economics graduates. *International Journal of Scientific & Technology Research*, 10(9), 4-9.
- Dela Cruz, A., & Reyes, B. (2021). Factors affecting the academic success of SHS TVL students. *Asian Journal of Education and Training*, 7(4), 345-356.
- Dela Cruz, N. (2019). Technical education for the modern electrical industry. *Journal of Vocational Studies*, 8(1), 45-56.
- De Guzman, M. P. V., Cristobal, E. C. (2021). Work readiness of technical vocational livelihood - home economics graduates. *International Journal of Scientific & Technology Research*, 10(9), 4-9.
- Department of Education. (2018). *Senior high school curriculum guide: Technical-Vocational Livelihood (TVL) track*. DepEd.
- Derrick, B., White, P., & Toher, D. (2019). Parametric and non-parametric tests for the comparison of two samples which both include paired and unpaired observations. *Journal of Modern Applied Statistical Methods*, 18(1), eP2847. <https://doi.org/10.22237/jmasm/1556669520>
- Diolingo, M. A. A., & Dioso, D. P. D. (2019). Awareness and use of democratic teaching strategy of basic education teachers. *Philippine Social Science Journal*, 2(1), 83-95. <https://doi.org/10.52006/main.v2i1.75>

- Edralin, D., & Pastrana, R. (2023). Technical and vocational education and training in the Philippines: In retrospect and its future directions. *Bedan Research Journal*, 8(1), 138–172. <https://doi.org/10.58870/berj.v8i1.50>
- Farhan, A. (2023). Concept of business management and development to ensure the success of spa business. *Indonesian Journal of Tourism and Hospitality Management*, 2(1), 81–98. <https://doi.org/10.55927/wakatobi.v2i1.4880>
- Ferrer, A. (2022). Status of implementation of Technical-Vocational-Livelihood (TVL) track in secondary schools in Botolan District. *American Journal of Multidisciplinary Research & Development (AJMRD)*, 4(08), 18-35.
- Francisco, A. M. (2015). *From subjects to citizens: American colonial education and Philippine nation-making, 1900-1934*. University of California, Berkeley.
- Fusco, L., Sica, L. S., Parola, A., & Aleni Sestito, L. (2022). Vocational identity flexibility and psychosocial functioning in Italian high school students. *International Journal of School & Educational Psychology*, 10(1), 144-154. <https://doi.org/10.1080/21683603.2020.1841050>
- Gabia, C. C. (2023). Curriculum and instructional assessment of the bachelor of technology and livelihood education major in home economics program. *European Journal of Innovation in Nonformal Education*, 3(7), 265–294.
- Garcia, M. (2020). The role of vocational training in the automotive industry. *Journal of Vocational Education*, 12(2), 234-246.
- Gati, I., & Kulcsár, V. (2021). Making better career decisions: From challenges to opportunities. *Journal of Vocational Behavior*, 126, 103545. <https://doi.org/10.1016/j.jvb.2021.103545>
- Gomez, R., & Rosales, J. (2020). Comparing outcomes: TVL students versus others. *Journal of Comparative Education in the Philippines*, 2(2), 50-65.
- Herro, D., Frady, K., & O'Hara, R. (2023). Exploring technical college student's collaborative problem-solving and teamwork skills in multi-educational level engineering design teams. *European Journal of Engineering Education*, 1-21. <https://doi.org/10.1080/03043797.2023.2286315>
- Intad, D. B. M. (2021). Determinants of career paths among grade 12 Students, Division of Agusan del Norte, Philippines. *SMCC Higher Education Research Journal*, 8.
- IvyPanda. (2023, August 24). *Descriptive correlational design in research*. <https://ivypanda.com/essays/descriptive-statistics-and-correlational-design>

- Jones, A., & Reyes, R. (2021). Bridging the gap: Higher education preferences of TVL students in Metro Manila. *Philippine Educational Research Journal*, 29(2), 123-139.
- Kjeldsen, K. (2019). A study-of-religion (S)-based religion education: Skills, knowledge, and aims. *Center for Educational Policy Studies Journal*, 9(4), 11-29. <https://doi.org/10.26529/cepsj.678>
- Lagajino, E. L. V., Ibanez, M. M., Guirguiz, J. M. C., Tuting, A., & Balila, J. S. (2016). Students' career choices: A guide for senior high school preparation. *Journal of International Scholars Conference*, 1(2), 135-140.
- Lasco, G., & Hardon, A. P. (2019). Keeping up with the times: skin-lightening practices among young men in the Philippines. *Culture, Health & Sexuality*, 1–16. <https://doi.org/10.1080/13691058.2019.1671495>
- Legg-Jack, D. W., & Alant, B. P. (2022). Stakeholders' perceptions on the use of an ICT-enabled onboard diagnostic system tool for the teaching of motor vehicle mechanics at Port Harcourt Technical College, Nigeria. *Journal of Studies in Social Sciences and Humanities*, 8(1), 84-97.
- Li, L. (2020). Education supply chain in the era of Industry 4.0. *Systems Research and Behavioral Science*, 37(4), 579-592. <https://doi.org/10.1002/sres.2702>
- Majid, S., Eapen, C. M., Aung, E. M., & Oo, K. T. (2019). The importance of soft skills for employability and career development: Students and employers' perspectives. *IUP Journal of Soft Skills*, 13(4).
- Malik, H., Iqbal, A., & Yadav, A. K. (2020). *Soft computing in condition monitoring and diagnostics of electrical and mechanical systems* (Vol 1096, p. 499). Berlin/Heidelberg, Germany: Springer.
- Martinez, C. (2022). Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum. *Cogent Education*, 9(1), 2024936. <https://doi.org/10.1080/2331186X.2021.2024936>
- Medalla, J. V. B., Dipad, M. A. D., & Bongalosa, C. G. (2021). The offering bachelor of science in entertainment and multimedia computing in Sorsogon State University–Bulan campus: A feasibility study. *European Journal of Humanities and Educational Advancements*, 2(11), 76-83.
- Mendoza, P. (2022). Investing in our educators: The key to TVL students' success. *Philippine Educational Review*, 6(3), 200-215.

- Mercado, R., & Lim, H. (2018). Culinary arts in the 21st century: Beyond cooking skills. *Journal of Culinary Education and Research*, 7(4), 220-232.
- Meyer, M. W., & Norman, D. (2020). Changing design education for the 21st century. *She Ji: The Journal of Design, Economics, and Innovation*, 6(1), 13-49. <https://doi.org/10.1016/j.sheji.2019.12.002>
- Moller, D. P., & Haas, R. E. (2019). *Guide to automotive connectivity and cybersecurity*. Springer International Publishing.
- Mudondo, T. (2023). Reliving technical and vocational education and training to juxtapose industrial engineering and operation management for national development: The case of Africa. *American Journal of Operations Management and Information Systems*, 8(1), 1-11. <https://doi.org/10.11648/j.ajomis.20230801.11>
- Navarro, K. (2019). Post-graduation trajectories of TVL students. *Asian Vocational Education and Training Review*, 4(1), 78-92.
- Nicodemus, J. C. (2021). *Qualitative exploration of the transition experiences of the senior high model school graduate in region IV-CALABARZON*. Doctoral dissertation, University of the Philippines.
- Nolasco, M. A., Beguia, Y., Durante, E. E., & Tipones, G. D. (2015). Program for enhancing resilience to climate change: A basis for school -community partnership. *Asia Pacific Journal of Multidisciplinary Research*, 3(4), 158-166.
- Ozcan, M. (2020). Factors affecting students' academic achievement according to the teachers' opinion. *Education Reform Journal*, 6(1), 1-18. <http://dx.doi.org/10.22596/erj2021.06.01.1.18>
- Okolie, U.C., Elom, E.N., Igwe, P.A., Binuomote, M.O., Nwajiuba, C.A. and Igu, N.C.N. (2021). Improving graduate outcomes: Implementation of problem-based learning in TVET systems of Nigerian higher education. *Higher Education, Skills and Work-Based Learning*, 11(1), 92-110. <https://doi.org/10.1108/HESWBL-12-2018-0140>
- Orbeta, A. C. (2021). Vocational education and training in the Philippines. *International Handbook on Education in South East Asia*, 1-30. https://doi.org/10.1007/978-981-16-8136-3_9-1
- Paladio, C. M., & Buayan, M. (2023). Graduates of the K-12 curriculum under TVL Strands in the Division of Masbate City. *Psychology and Education: A Multidisciplinary Journal*, 11(4), 311-322. <https://doi.org/10.5281/zenodo.8191263>

- Pantaran, H. (2018). *Correlates of students' preferences on TVL track and academic engagement*. Master's Thesis, Mindanao State University – Iligan Institute of Technology.
- Pathak, R. K., Saxena, D., Upadhyay, R. K., & Singh, V. (2023). Technical and vocational education in context of G20 declaration. *International Neurourology Journal*, 27(4), 995-1003. <https://einj.net/index.php/INJ/article/view/276>
- Parker, R., & Lim, M. (2020). Determinants of higher education aspirations among Filipino TVL track students. *Asia Pacific Journal of Education*, 40(3), 356-371.
- Pua, M. W. M. (2022). *The perception of lifelong learning by adult learners under the context of education transformation in Hong Kong: A study of adult learners' values and experiences in the Continuing Education Fund (CEF) Programme*. Doctoral dissertation, University of Nottingham.
- Ramos, J. J. R. (2018). Critical thinking skills among senior high school students and its effect in their academic performance. *International Journal of Social Sciences & Humanities (IJSSH)*, 3(2), 60-72. <http://ijssh.ielas.org/index.php/ijssh/article/view/30>
- Ramos, L. (2021). The fusion of art and science in cosmetology education. *Beauty and Education Journal*, 5(3), 101-110.
- Salape, R. C., & Cuevas, E. G. (2020). The link between career development learning and employability skills of senior high school students. *Univ. Mindanao Int. Multidiscip. Res. J*, 5, 56-64.
- Santos, C. G. E. (2021). Addressing communication requirements in the technical-vocational-livelihood track: Authentic assessment tool as guide to communication instruction. *Journal of World Englishes and Educational Practices*, 2(2), 158-168.
- Santos, L. (2019). Skill-focused education: A closer look at TVL students. *Philippine Journal of Vocational Education*, 3(1), 45-59.
- Schots, A., Kilag, O. K., Montajes, G. J., & Abendan, C. F. (2023). Career decision-making: The interplay between reason and intuition in Frank Parsons's model for senior high school students. *Excellencia: International Multi-disciplinary Journal of Education*, 1(5), 358-371.
- Smith, J. (2019). *The dynamics of technical-vocational livelihood education: A look into the Filipino SHS experience*. Manila University Press.
- Sun, X., Li, Z., Wang, X., & Li, C. (2019). Technology development of electric vehicles: A review. *Energies*, 13(1), 90. <https://doi.org/10.3390/en13010090>

- Thompson, L., Bernardo, M., & Pena, R. (2022). Peer influence and counseling: The hidden factors in TVL students' higher learning choices. *Southeast Asian Journal of Education*, 45(1), 78-92.
- Torres, M. (2021). Evolving with the times: The TVL curriculum. *Philippine Policy Journal*, 9(1), 10-25.
- Vecaldo, R. T., Tamayao, A. I., Mamba, M. T., Asuncion, J. E. L., Paat, F. M. G., & Pagulayan, E. S. (2020). Academic profile and college preparedness of K-12 Graduates: The case of the indigenous peoples (IPs) in the Northern Philippines. *Journal of Education and e-Learning Research*, 7(4), 437-445. <https://doi.org/10.20448/journal.509.2020.74.437.445>
- Yang, L., & Patrick, E. (2023). Public investment in short-cycle tertiary vocational education: Historical, longitudinal, and fixed-effects analyses of developed and less-developed countries. *Education Sciences*, 13(6), 573. <https://doi.org/10.3390/educsci13060573>
- Zimmerman, D. W., & Zumbo, B. D. (2014). *The relative power of parametric and nonparametric statistical methods*. In *A handbook for data analysis in the behavioral sciences* (pp. 481-517). Psychology Press.