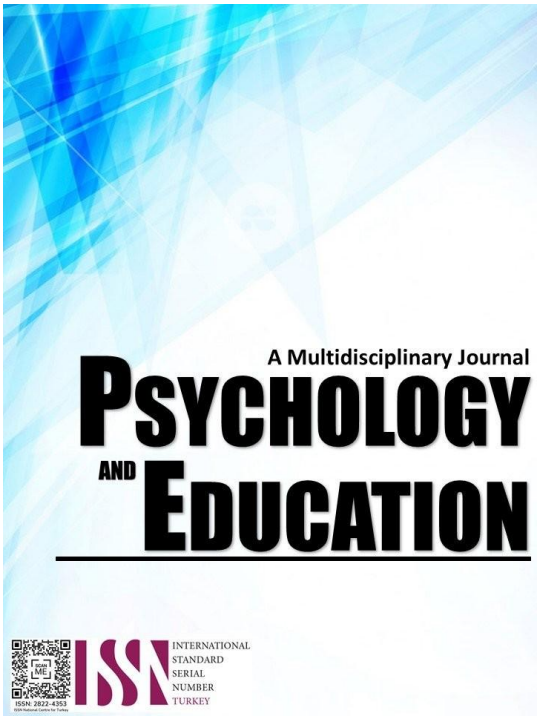
ASSESSING THE READINESS OF TVL STUDENTS FOR COLLEGE EDUCATION: A BASIS FOR COLLEGE EDUCATION READINESS PROGRAM



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Research Article

Assessing the Readiness of TVL Students for College Education: A Basis for College Education Readiness Program

Jastine P. Trinidad,* Daisy L. Obiso, Jasper Pabroa
For affiliations and correspondence, see the last page.

Abstract

This study employed a descriptive correlational research design to examine the college readiness of Technical-Vocational-Livelihood (TVL) students across academic, technical, and socio-emotional domains. Findings revealed a generally moderate to high level of preparedness for higher education. Academic readiness was characterized by strong skills in communication, written expression, and classroom engagement. However, students exhibited challenges in independent learning, time management, and completing academic tasks without supervision, highlighting the need for targeted interventions that strengthen autonomous learning behaviors and self-regulation—competencies vital for successful college adjustment. In the domain of technical skills, TVL–Cookery students demonstrated strong proficiency in procedural and hands-on competencies, including hygiene, safety, food preparation, and workstation management. Despite these strengths, adaptive technical abilities—such as troubleshooting and rapid decision-making—were less evident. This suggests the importance of integrating problem-based and scenario-driven learning opportunities to enhance real-world technical autonomy and critical thinking. Socio-emotional readiness emerged as a significant strength, with students exhibiting high levels of motivation, confidence, and self-efficacy. Nonetheless, difficulties in sustaining attention and maintaining focus were observed, indicating that structured mentoring, study-skills programs, and controlled exposure to academic pressures could further reinforce emotional regulation and persistence. Correlation analysis revealed significant positive relationships among all three readiness domains, with the strongest association observed between academic and socio-emotional readiness, underscoring their interdependence. MANOVA results identified General Weighted Average (GWA) as the sole significant predictor of college readiness, emphasizing academic performance as a foundational contributor to holistic preparedness. Overall, the study affirms that TVL students possess substantial readiness for college but require balanced, multidimensional support to strengthen independent learning, adaptive technical skills, and sustained focus.

Keywords: *college education readiness, technical-vocational-livelihood (TVL), academic readiness, technical skills readiness, socio-emotional readiness, college transition*

Introduction

One of the core tenets exalted in the Sustainable Development Goals (SDGs) is the primacy of education as a tool for genuine societal development. Inclusive and equitable education, the core principles of SDG 4, states that education is a matter of global importance (UNICEF, 2023). This analysis explicitly demands that each nation must invest and allocate 4-6% of its GDP to educational directives (OECD, 2021). With significant capital as input, learning institutions will have the necessary means to elevate the lives of all individuals through quality education.

Top-notch quality education is measured through clear and objective outputs (Teachers Institute, 2023). The overall performance of the educational system is consequential to the quality of living and economic standing of a nation. Having a functioning education is one of the most reliable routes out of poverty. It has a cascading influence on public health, sophisticated technology, decent labor, and other areas (World Bank, 2023).

In the context of the Philippines, the issue of quality education is commonplace, constantly being discussed in the academe, on social media, and in public spaces. College education readiness is part of the spectrum of these discussions. The starting point of this research is on the revised K-to-12/MATATAG curriculum, specifically the senior high school Technical-Vocational-Livelihood (TVL) strand, wherein specific revisions were made. Significant findings indicated that most TVL graduates are not hired, or only a few are employed. Only 20% of the major industries and sectors in the Philippines are likely to hire graduates (DepEd, 2018).

In addition, the Philippine Chamber of Commerce raised concerns that part of the reason for not opting to hire TVL graduates, aside from airtight competition, is due to sector/industry-related competence that is not yet covered under the SHS curriculum, leading to reforms of the curriculum. The focus of the revised K-to-12 curriculum for SHS TVL is structured around curriculum exits, namely, trabaho, negosyo, higher education, and middle-level skills development, which guarantees the preferences and career choices of graduates (Dence B. Bacaling, 2019). The gap between the acceptability of graduates to industry standards requires input. The existing ways to confront this gap are to either invest in training and certifications, such as the National Certificate (NC) offered by TESDA, or in college education (Edralin & Pastrana, 2023).

The SHS TVL track has different strands, ranging from Agri-Fishery Arts, Home Economics, Industrial Arts, and Information and Communications Technology (ICT), with corresponding specializations. The strands cover a broad number of industries critical for nation-building, and each industry requires unique standards for employability, both private and public. However, the problem stems

from too much focus on credentials, more so on actual skills, resulting in 40% of employees being overqualified for the job. This results in job mismatch, and often these employees will eventually resign, invalidating company investments (Philippine Institute for Development Studies, 2022). Now it is revealed that problems in employment are due to the relationship between competence and hiring standards: a path forward for graduates becomes clear.

College education is not a requirement in some of the industries; however, it is an edge, a positional positive, in a very hypercompetitive employment climate. Since the employment pool is overcrowded with bachelor's degree holders, seasoned workers, and others, the current TVL curriculum will not automatically convince the market to accept its graduates (Mare, 2024). Where should our TVL graduates position themselves under these realities?

A study by Hasigan and Accad (2025) with over a thousand respondents reveals that the majority of TVL graduates pursued college degrees related to their strand, rather than employment, entrepreneurship, or middle-skill jobs. This means that graduates are considered in the culture of the hiring competition, wherein they focus on building and improving their skill set and sector-relevant competence through higher education.

On the other hand, industries explicitly or implicitly apply the concept of credential inflation, which means that a degree loses its employability relative to the number of applicants who earned the same degree. In reality, employers will restructure their hiring standards that go beyond or even in addition to degrees, tilting towards more on the attitudinal, the aspect of personality needed for work adaptability, such as self-management and efficiency (Horowitz, 2018).

Recent research indicates that the majority of Technical-Vocational-Livelihood (TVL) Senior High School graduates increasingly pursue college education rather than immediate workforce entry. Concurrently, industry expectations have expanded beyond the possession of a degree to include strong work-related competencies such as self-regulation, adaptability, and socio-emotional skills. This convergence underscores the responsibility of senior high schools to ensure that graduates are adequately prepared to meet the academic demands of higher education—demands that also mirror the competencies required in contemporary workplace settings (O'Neill & Short, 2023).

Given this context, a systematic assessment of college readiness among TVL graduates is necessary to generate empirical evidence that can inform targeted and effective educational interventions. Accordingly, the primary objective of this study is to identify, measure, and analyze the level of college readiness among TVL Senior High School graduates of Lourdes Empinado National High School across multiple dimensions—specifically academic, technical, and socio-emotional readiness—that are aligned with current higher education requirements and prevailing employment standards. Through this multidimensional assessment, the study aims to provide a data-driven basis for strengthening curriculum implementation, instructional strategies, and student support mechanisms that facilitate successful transition to both college and the world of work.

Research Questions

The goal of this study was to assess the level of college education readiness by analyzing the relationship between the levels of academic, technical skills, and socio-emotional readiness of grade 12 TVL senior high school students of Lourdes Empinado NHS for the school year 2025-2026. Specifically, the research intended to answer the following research questions:

1. What is the demographic profile of respondents in terms of:
    1.1. age;
    1.2. sex;
    1.3. general weighted average; and
    1.4. highest parental education?
2. What is the respondents' perceived level of academic readiness?
3. What is the respondents' perceived level of technical skills readiness in:
    3.1. TVL cookery; and
    3.2. TVL animation?
4. What is the respondents' level of socio-emotional readiness in terms of:
    4.1. self-management;
    4.2. motivation; and
    4.3. self-efficacy?
5. What is the respondents' level of college education readiness?
6. Is there a relationship between the levels of academic, technical skills, and socio-emotional readiness of the respondents?
7. Is there a significant difference between the respondents' levels of academic, technical skills, and socio-emotional readiness when grouped according to demographic profile?
8. Based on the findings, what college education readiness program can be recommended for TVL students?

Literature Review

Theoretical, Policy, and Empirical Foundations of College Readiness among TVL Students

This study is anchored on Republic Act No. 10533 (Enhanced Basic Education Act of 2013), which mandates the holistic development of Filipino learners by equipping them with knowledge, skills, values, and competencies necessary for higher education, employment, entrepreneurship, and lifelong learning. Consistent with this mandate, DepEd Order No. 10, s. 2024, or the Policy Guidelines on the MATATAG Curriculum, operationalizes these goals by emphasizing learner-centered, competency-based, and values-oriented instruction. Together, these policy frameworks establish the institutional expectation that TVL Senior High School (SHS) graduates must be prepared not only for immediate employment but also for the academic, technical, and socio-emotional demands of college education. These mandates directly inform the study's conceptual framework, which positions college readiness as a multidimensional construct shaped by both individual competencies and systemic educational support.

Career Decision-Making and Readiness

The interaction of personal dispositions, learned behaviors, and environmental conditions influences career decision-making among TVL students. Readiness Theory, originally proposed by Thorndike, explains how repeated exposure to appropriate stimuli fosters the development of habits that guide long-term decision-making (Culatta, 2018). Empirical studies suggest that when schools intentionally design career guidance programs and decision-making interventions, students develop clearer career trajectories and demonstrate improved educational and employment outcomes (Geurts et al., 2023; Wang et al., 2023). Rather than viewing career choice as a single decision point, recent literature emphasizes the role of continuous practice and reinforcement in shaping informed and adaptive career behaviors (Chen et al., 2020). In the present study, this perspective supports the inclusion of readiness indicators related to academic engagement, self-regulation, and goal orientation, recognizing that these competencies underpin both college persistence and workplace success.

College Readiness, Support Systems, and Sociocultural Context

Extending beyond individual agency, Vygotsky's Sociocultural Theory highlights the critical role of social interaction and cultural context in learning and development. The presence of More Knowledgeable Others—such as teachers, parents, peers, and industry mentors—facilitates students' cognitive, emotional, and behavioral readiness for complex academic environments (McLeod, 2025). Empirical evidence demonstrates that students' decisions to pursue college are strongly shaped by interconnected support systems within their communities, including family expectations, school culture, and exposure to real-world applications of learning (Gamage et al., 2021; Eden et al., 2024). These findings reinforce the study's conceptual framework by situating college readiness not solely within the learner but within a broader ecosystem of support that cultivates confidence, adaptability, and socio-emotional maturity—key variables examined in this research.

Motivation, Self-Determination, and College Preparedness

Motivational processes further explain why students with comparable skills may demonstrate differing levels of readiness. Self-Determination Theory posits that readiness and engagement are optimized when learners' needs for autonomy, competence, and relatedness are satisfied (Deci & Ryan, as cited in Guay, 2022). Studies consistently show that students who experience autonomy in learning tasks, receive affirmation of competence, and maintain positive social relationships exhibit higher motivation and stronger readiness for college-level demands (Binghashayan et al., 2022; Yang et al., 2025). These motivational conditions are particularly relevant for TVL students transitioning to college, where independent learning and sustained effort are essential. Accordingly, the present study integrates socio-emotional and motivational indicators into its readiness framework, recognizing their role in mediating academic and technical performance (Munna & Kalam, 2021).

College Readiness Models and the Multidimensional Framework

The multidimensional nature of college readiness is most comprehensively articulated in Conley's College Readiness Model, which integrates cognitive strategies, content knowledge, learning skills, and transition competencies. This model underscores that readiness extends beyond academic achievement to include non-cognitive dispositions necessary for navigating college expectations and responsibilities (PLTW, 2024). Empirical applications of Conley's framework demonstrate its utility in explaining student persistence and success in higher education, particularly when academic and socio-emotional factors are jointly considered (Josiah, 2024). In alignment with this model, the current study conceptualizes college readiness among TVL students as an interaction of academic, technical, and socio-emotional domains, providing a structured lens for assessment and analysis.

Synthesis and Research Gap

Synthesizing policy mandates, theoretical perspectives, and empirical findings, the reviewed literature collectively affirms that college readiness is a contextual, multidimensional construct shaped by individual competencies, motivation, and systemic support. While substantial research has examined college readiness in general education tracks, TVL SHS students—particularly in the Philippine context—remain underrepresented in readiness-focused studies. This gap underscores the relevance of the present research, which seeks to empirically assess the readiness of TVL graduates for college education using a framework grounded in national policy,

educational theory, and contemporary research. The integrated insights from this review directly inform the study's conceptual framework, research design, instrumentation, and analytical approach.

Methodology

Research Design

This study utilized a descriptive–correlational research design to assess the college readiness of Grade 12 TVL students of Lourdes Empinado NHS for the school year 2025–2026. The design is appropriate as it allows the description of students' demographic profile and their perceived levels of academic, technical, and socio-emotional readiness, while also examining the relationships among these domains and the differences in readiness when grouped according to age, sex, general weighted average, and parental education. By combining descriptive and correlational analyses, the study provides a comprehensive understanding of the factors influencing TVL students' preparedness for higher education, which in turn serves as the basis for proposing a contextualized college readiness program.

Respondents

The study employed stratified random sampling with proportional allocation to ensure that each section under the TVL strand of Lourdes Empinado National High School was adequately represented. The total TVL student population for Grade 12 was 147, distributed across two Animation sections (St. Barbara and St. Mary Magdalene) and two Cookery sections (St. Martha and St. Elizabeth). Using Slovin's formula at a 5% margin of error, the computed sample size was 108 students. This total was then proportionally allocated to each section based on its population size. Within each stratum, respondents will be chosen randomly to avoid selection bias and to guarantee that every student has an equal chance of being included in the study.

Instrument

The study employed a researcher-made questionnaire designed to reflect the contextual realities and strand-specific experiences of Technical-Vocational-Livelihood (TVL) students at Lourdes Empinado National High School (LENHS). The instrument consisted of two parts: Part I, which gathered demographic data (age, sex, General Weighted Average, and highest parental educational attainment), and Part II, which measured college readiness across three dimensions—academic, technical, and socio-emotional readiness—aligned with the study's conceptual framework.

Content validity was established through expert evaluation by three validators: a senior high school administrator, a TVL subject specialist, and a research and measurement expert. Items were reviewed for clarity, relevance, and alignment with the intended constructs, and revisions were made based on their recommendations.

A pilot test involving 20 TVL students not included in the main sample was conducted to assess reliability. Cronbach's alpha yielded a coefficient of 0.67, which, although slightly below the conventional 0.70 benchmark, is considered acceptable for exploratory, context-specific studies using newly developed, multidimensional instruments (Frost, 2022). The instrument was therefore deemed adequate for the purposes of this study, with further refinement recommended for future research.

Procedure

To ensure the systematic, ethical, and reliable collection of data, the study followed a structured procedure conducted over two months.

Weeks 1–2: Permissions and Preparation – Approval was secured from the school principal and the school research/ethics committee. Where required, permission was obtained from the Schools Division Office. The researcher finalized the validated questionnaire, informed consent and parental consent forms, and an instruction sheet detailing the study's purpose, voluntary participation, and confidentiality safeguards.

Week 3: Instrument Finalization –The questionnaire had undergone prior pilot testing and reliability analysis. Revisions were incorporated based on pilot results to enhance clarity and internal consistency.

Weeks 4–5: Coordination and Consent –The researcher coordinated with school administrators and subject teachers to schedule data collection with minimal class disruption. Students and parents/guardians (for minors) were provided consent forms and information sheets at least three days before administration.

Week 6: Data Collection –The questionnaire was administered in paper-based form by the researcher, with assistance from class advisers, in a supervised classroom setting. Standardized instructions were read aloud, questions were clarified, and sufficient time was allotted to complete the instrument. To ensure confidentiality, no names were written on the questionnaires, seating was spaced to minimize peer influence, and completed forms were submitted directly to the researcher in sealed envelopes.

Weeks 7–8: Data Handling and Analysis – Completed questionnaires were checked for completeness, coded, and entered into statistical software. Data were stored in password-protected files accessible only to the researcher. Analyses included descriptive statistics, correlation analysis, and group comparisons as specified in the research design. All findings were reported in aggregate form to protect respondent anonymity.

Data Analysis

The data gathered in this study were treated using both descriptive and inferential statistics to ensure a comprehensive analysis of the respondents' demographic profile and level of college readiness.

Descriptive statistics were employed to summarize and describe the data in meaningful ways. Frequency counts and percentages were used to present the demographic profile of respondents in terms of age, sex, general weighted average, and highest parental education. Meanwhile, measures of central tendency, particularly the mean, were utilized to determine the overall level of college readiness across three dimensions: academic readiness, technical skill readiness, and socio-emotional readiness. The standard deviation was also computed to describe the variability of responses within each dimension.

For the inferential statistics, Pearson's Product-Moment Correlation Coefficient (r) was used to examine the relationship between the students' levels of college readiness. Multivariate Analysis of Variance (MANOVA) was applied to test significant differences in college readiness when grouped according to demographics. A significance level of 0.05 was set as the threshold for determining whether statistical results were considered significant. These methods ensured that both the descriptive trends and the underlying patterns of association and group differences were captured in the analysis.

Ethical Considerations

This study was conducted in accordance with established ethical standards to protect the rights, welfare, and dignity of all participants and to ensure the integrity of the research process. Prior to data collection, formal approval was obtained from the School Head of Lourdes Empinado National High School (LENHS), and clearance was issued by the DepEd Cebu Province under the endorsement of the school's district supervisor of Barili II, authorizing the conduct of the study among Grade 12 Technical-Vocational-Livelihood (TVL) students.

Informed consent was obtained from all participants prior to their involvement in the study. As the respondents included minors, written parental or guardian consent was likewise secured in compliance with ethical research guidelines. Participants were clearly informed of the study's purpose, procedures, voluntary nature of participation, and their right to withdraw at any stage without penalty.

To ensure confidentiality and anonymity, no personally identifiable information was collected. Responses were used solely for academic purposes and were reported in aggregate form to prevent identification of individual participants. All data were securely stored in password-protected files accessible only to the researcher. Throughout the study, the researcher maintained transparency, objectivity, and fairness in data collection, analysis, and reporting, thereby upholding ethical responsibility and research credibility.

Results and Discussion

In this section, a comprehensive quantitative analysis of the data is presented, combining detailed tables with textual explanations to provide a clear and thorough interpretation of the findings. Both descriptive and inferential statistical techniques are employed, aligning closely with the research questions outlined in Chapter I. By systematically analyzing the data, the chapter provides evidence-based insights into the perceived curriculum shifts and the quality of instructional processes, establishing a solid foundation for discussion, conclusions, and recommendations.

Respondents' Demographic Profile

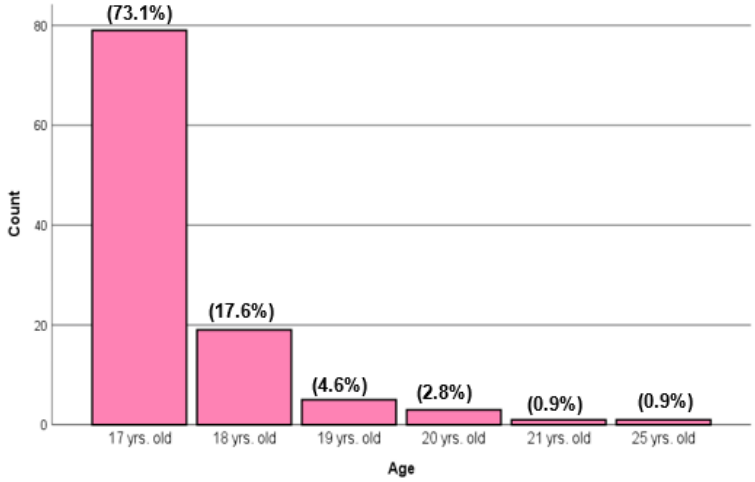

Figure 1. *Age Distribution Percentages of Respondents*

Based on the data presented in the figure, the majority of the respondents are 17 years old, comprising 79 out of 108, or 73.1% of the total population. This indicates that most of the participants belong to the typical age bracket of senior high school students in the

Technical-Vocational-Livelihood (TVL) track. Meanwhile, 19 respondents (17.6%) are 18 years old, while a smaller portion falls within the older age range: 5 (4.6%) are 19 years old, 3 (2.8%) are 20 years old, and only 1 respondent each (0.9%) is 21 and 25 years old, respectively. The data suggest that the respondents are predominantly in the expected schooling age, which aligns with the standard age for Grade 12 students (iEducation Philippines, 2025). This age distribution implies that most participants are likely in the proper educational stage to assess their readiness for college education accurately.

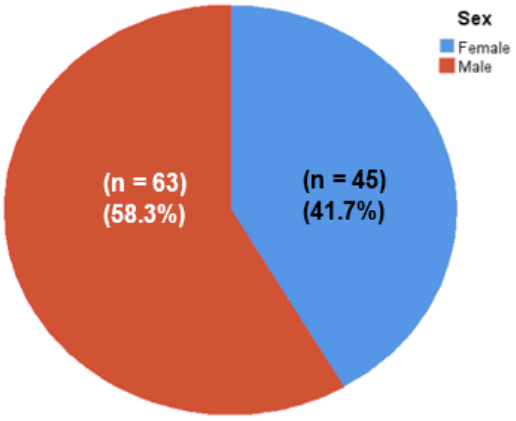

Figure 2. *Sex Distribution of Respondents*

Based on the data presented in the pie chart, the majority of the respondents are male, comprising 63 out of 108 or 58.3% of the total population, while 45 respondents (41.7%) are female. This distribution shows a higher participation of male students in the Technical-Vocational-Livelihood (TVL) track, reflecting gender inclination toward technical and skill-oriented specializations commonly offered under TVL strands, such as animation and cookery (Soliman & Dr. Daryll R. Gabutin, 2025). The presence of a substantial number of female respondents, however, indicates a growing interest among females in pursuing technical-vocational education, suggesting a shift toward gender inclusivity in this field. This balance, though slightly male-dominated, implies that both male and female students are engaging in TVL programs, contributing diverse perspectives and competencies, influencing their overall readiness for college education.

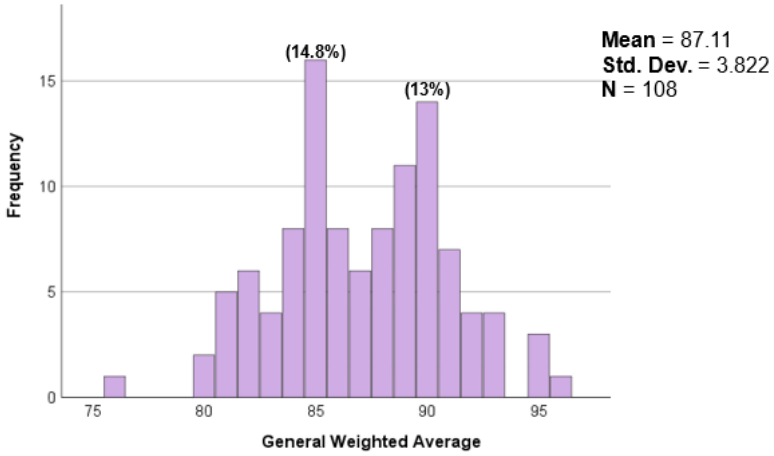

Figure 3. *General Weighted Average Distribution of Respondents*

The General Weighted Average (GWA) of the respondents reveals that most students performed within the average to above-average range. The distribution shows that the highest frequencies are observed at 85 (14.8%) and 90 (13%), with a considerable number of students also clustered between 84 and 89, indicating generally good academic performance. The computed mean GWA is 87.11, which suggests that the majority of TVL students achieved grades above the passing standard, reflecting consistent academic achievement. The standard deviation of 3.822 indicates a moderate dispersion of scores, meaning that while most students' performances are close to the average, there are a few who performed significantly higher or lower.

The histogram shows a roughly normal distribution, with scores concentrated around the mean and gradually tapering off toward the extremes. Only a small number of students obtained very high (95–96) or low (76–80) averages, confirming limited variability among respondents. Overall, the results suggest that the academic performance of the TVL students is generally stable and normally distributed, implying a consistent level of preparedness and academic capability suitable for college-level education. Academic achievements indicated by grades in SHS are detrimental in gauging early college years academic success (Avigail Magbag & Jr,

2020).

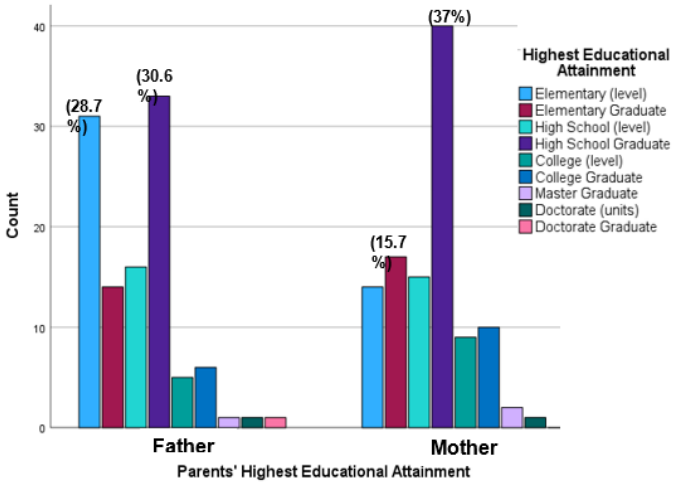

Figure 4. *Parents' Highest Educational Attainment Distribution of Respondents*

The educational attainment of the respondents' parents is largely concentrated at the secondary level, indicating a predominantly basic educational background among families of TVL students. Most fathers are high school graduates (30.6%) or reached the elementary level (28.7%), while only a small proportion attained college education (5.6%) or postgraduate degrees (2.7%). A similar pattern is observed among mothers, with the majority completing high school (37%), followed by elementary graduate (15.7%) and elementary level (13.0%). Only a limited number of mothers pursued college education (9.3%) or higher studies (2.8%).

Overall, the data reflect minimal representation of parents with tertiary or postgraduate education, suggesting that most students come from households with limited academic capital. This educational profile may constrain the level of academic guidance and college-related support parents can provide, potentially influencing students' motivation and readiness for higher education. However, the presence of some college-educated and postgraduate parents indicates that a subset of students benefits from stronger academic encouragement at home.

Despite these constraints, TVL students' continued pursuit of higher learning highlights resilience and aspirational mobility. Consistent with this finding, Bao (2025) emphasized that higher parental educational attainment is positively associated with students' academic success, particularly at the secondary level.

Table 1. *Level of Academic Readiness (LAR) of Respondents*

Statements	*Animation*			*Cookery*		
	Std. Deviation	*Mean*	*Description*	*Std. Deviation*	*Mean*	*Description*
1. I can understand lessons and instructions given in English	0.862	3.21	Moderate Readiness	0.923	3.56	Moderate Readiness
2. I can complete academic tasks and assignments on time.	0.975	3.25	Moderate Readiness	0.833	3.61	Moderate Readiness
3. I can study independently without much guidance from teachers.	0.851	2.82	Moderate Readiness	0.853	3.15	Moderate Readiness
4. I can comprehend and summarize readings from textbooks and other materials.	0.769	2.88	Moderate Readiness	0.808	3.44	High Readiness
5. I can analyze and solve problems that require critical thinking.	0.800	2.90	Moderate Readiness	0.896	3.44	High Readiness
6. I can manage my study time well to prepare for exams or a project.	0.918	3.22	Moderate Readiness	0.840	3.51	High Readiness
7. I can take notes effectively during lectures or discussions	1.065	3.04	Moderate Readiness	0.805	3.41	High Readiness
8. I can apply mathematical skills to solve academic-related problems.	0.852	3.03	Moderate Readiness	1.131	3.15	Moderate Readiness
9. I can communicate my ideas clearly in written form (e.g., essays, reports).	0.845	3.21	Moderate Readiness	0.672	3.27	Moderate Readiness
10. I can participate actively in class discussions and group activities.	0.943	3.48	High Readiness	0.873	3.71	High Readiness
Average	-	3.10	Moderate Readiness	-	3.43	High Readiness

Note. Scale indicators: 1.00–1.79 = Very Low Readiness; 1.80–2.59 = Low Readiness; 2.60–3.39 = Moderate Readiness; 3.40–4.19 = High Readiness; 4.20–5.00 = Very High Readiness.

The table shows differences in academic readiness between Animation and Cookery students in the TVL track. Animation students registered a grand mean of 3.10, indicating Moderate Readiness, while Cookery students obtained a higher grand mean of 3.43, interpreted as High Readiness. This suggests that although Animation students are reasonably prepared for academic tasks, Cookery students demonstrate stronger overall confidence and preparedness in meeting academic demands.

Animation students showed strengths in participation during class discussions and group activities (M = 3.48, SD = 0.943) but exhibited lower readiness in independent study, reading comprehension and summarization, and critical-thinking problem-solving, pointing to challenges in self-regulation and higher-order skills.

In contrast, Cookery students rated highly in participation, timely task completion, and written communication, though independent study emerged as their weakest area. The moderate spread of responses indicates individual differences in study habits and confidence. Consistent with Allensworth and Clark (2020), the findings highlight the importance of strengthening self-regulated learning and higher-order academic skills to enhance college readiness among TVL students.

Table 2. *Level of Technical Skills Readiness (LTSR) of TVL-Cookery Respondents*

Statements	*Std. Deviation*	*Mean*	*Description*
1. I can properly identify, select, and use kitchen tools, utensils, and equipment according to their functions.	1.162	3.79	High Readiness
2. I can perform standard procedures in food preparation, cooking, and plating.	1.012	3.78	High Readiness
3. I can follow hygiene, sanitation, and safety standards required in food handling and kitchen operations.	0.957	4.15	High Readiness
4. I can apply cooking techniques such as sautéing, boiling, baking, grilling, and frying with accuracy.	0.938	3.70	High Readiness
5. I can measure, weigh, and portion ingredients precisely according to recipe requirements.	1.004	3.55	High Readiness
6. I can follow recipe specifications and adjust them based on available ingredients or serving size.	1.067	3.66	High Readiness
7. I can maintain cleanliness and orderliness in my workstation throughout food preparation.	0.907	4.10	High Readiness
8. I can prepare dishes that meet both quality and presentation standards.	1.009	3.73	High Readiness
9. I can properly store raw and cooked food items to maintain their freshness and safety.	1.066	3.88	High Readiness
10. I can troubleshoot simple problems such as uneven cooking, sauce consistency, or seasoning balance.	0.969	3.30	Moderate Readiness
Average	-	3.76	High Readiness

Note. Scale indicators: 1.00–1.79 = Very Low Readiness; 1.80–2.59 = Low Readiness; 2.60–3.39 = Moderate Readiness; 3.40–4.19 = High Readiness; 4.20–5.00 = Very High Readiness.

The overall technical-skills readiness of TVL–Cookery students was high (M = 3.76), indicating strong competence in essential culinary operations. Students scored highest in observing hygiene, sanitation, and safety standards (M = 4.15), maintaining cleanliness and orderliness in workstations (M = 4.10), and proper food storage (M = 3.88), reflecting strong food-safety awareness and professional discipline.

High ratings in identifying and using kitchen tools, performing standard food-preparation procedures, and applying cooking techniques further demonstrate solid hands-on skills, consistent with Lagrada and Arroyo (2025), who found high culinary knowledge and self-efficacy among TLE students in structured technical tasks.

Despite these strengths, students showed comparatively lower readiness in troubleshooting cooking problems (M = 3.30), suggesting limited confidence in adaptive decision-making during non-routine situations. This aligns with Malayao and Buniel (2025), who noted that TVL–Cookery students perform well in routine tasks but struggle with independent problem-solving. The moderate variability in responses indicates differences in practical exposure and experience, highlighting the need for problem-based and scenario-driven learning to strengthen adaptability, precision, and professional readiness in real-world kitchen environments.

Table 3. *Level of Technical Skills Readiness of TVL-Animation Respondents*

Statements	*Std. Deviation*	*Mean*	*Description*
1. I can properly identify, select, and use tools, devices, and software related to 2D and/or 3D animation.	1.055	3.29	Moderate Readiness
2. I can apply the basic principles of animation such as timing, spacing, squash and stretch, and anticipation.	0.771	3.39	Moderate Readiness
3. I can follow standard digital workflows from concept development to final rendering.	0.888	3.37	Moderate Readiness
4. I can design and manipulate characters, backgrounds, and objects using appropriate software (e.g., Adobe Animate, Blender, etc.).	0.994	3.24	Moderate Readiness
5. I can integrate color, lighting, and camera movements effectively to enhance visual storytelling.	0.978	3.51	High Readiness
6. I can synchronize animation sequences with audio and dialogue tracks.	1.020	3.10	Moderate Readiness

7. I can troubleshoot software or technical issues encountered during animation production.	1.072	3.00	Moderate Readiness
8. I can apply proper file management and naming conventions in organizing animation projects.	0.978	3.51	High Readiness
9. I can meet project specifications and deadlines without compromising quality.	1.026	3.44	Moderate Readiness
10. I can make necessary revisions based on feedback from instructors, peers, or clients.	0.936	3.22	Moderate Readiness
Average	-	3.31	Moderate Readiness

Note. Scale indicators: 1.00–1.79 = Very Low Readiness; 1.80–2.59 = Low Readiness; 2.60–3.39 = Moderate Readiness; 3.40–4.19 = High Readiness; 4.20–5.00 = Very High Readiness.

The overall technical-skills readiness of TVL–Animation students was assessed as moderate (M = 3.31), indicating adequate but uneven preparedness in handling animation-related tasks. Students demonstrated stronger competence in integrating color, lighting, and camera movements to enhance visual storytelling and in applying proper file management and naming conventions (both M = 3.51), reflecting proficiency in creative design fundamentals and disciplined workflow practices. These findings align with those of Reyes et al. (2025), who noted that animation students tend to perform well in structured technical tasks that emphasize organization and foundational production skills.

Lower ratings were observed in troubleshooting software or technical issues (M = 3.00), synchronizing animation with audio (M = 3.10), and revising work based on feedback (M = 3.22), suggesting challenges in adaptability, problem-solving, and collaborative responsiveness. The moderate variability in responses indicates relatively similar learning experiences across students, yet highlights gaps in adaptive and socio-emotional readiness. Consistent with Jin (2023) and Mardi et al. (2025), these results underscore the need to integrate problem-based, scenario-driven, and collaborative learning activities to strengthen students' adaptive skills and better prepare them for higher education and professional animation environments.

Table 4. *Level of Socio-Emotional Readiness (LSR) of Respondents*

	Statements	*Animation*			*Cookery*		
		Std. Deviation	*Mean*	*Description*	*Std. Deviation*	*Mean*	*Description*
Self-Management	1. I can manage my stress when faced with difficult school tasks.	0.919	3.61	High Readiness	1.050	3.48	High Readiness
	2. I can control distractions and stay focused on my studies.	0.978	3.51	High Readiness	0.880	3.27	High Readiness
	3. I can organize my time to balance schoolwork and personal life.	0.771	3.83	High Readiness	1.067	3.84	High Readiness
	4. I remain calm and composed when solving challenging problems.	0.898	3.49	High Readiness	0.978	3.66	High Readiness
	5. I can adjust my actions and habits when things do not go as planned.	0.919	3.61	High Readiness	0.962	3.66	High Readiness
Motivation	6. I feel eager and motivated to continue my education in college.	0.980	3.88	High Readiness	1.139	3.78	High Readiness
	7. I do my best in schoolwork even when the subject is difficult.	0.975	4.00	High Readiness	1.108	3.88	High Readiness
	8. I set personal goals to improve my academic performance.	0.865	3.95	High Readiness	0.949	3.91	High Readiness
	9. I push myself to finish tasks even when I feel tired or discouraged.	1.091	3.90	High Readiness	1.013	3.87	High Readiness
	10. I look for opportunities to learn beyond what is taught in class.	0.936	3.78	High Readiness	0.973	3.81	High Readiness
Self-Efficacy	11. I believe I can succeed in college if I prepare well.	0.863	3.83	High Readiness	1.175	3.88	High Readiness
	12. I am confident in my ability to understand complex lessons.	0.840	3.54	High Readiness	0.937	3.61	High Readiness
	13. I believe I can handle multiple tasks or projects at the same time.	0.968	3.63	High Readiness	0.909	3.55	High Readiness
	14. I trust myself to learn new skills and apply them effectively.	1.058	3.93	High Readiness	0.992	3.99	High Readiness
	15. I believe I can overcome challenges and setbacks in college.	0.900	3.88	High Readiness	1.136	3.66	High Readiness
	Average	-	3.76	High Readiness	-	3.72	High Readiness

Note. Scale indicators: 1.00–1.79 = Very Low Readiness; 1.80–2.59 = Low Readiness; 2.60–3.39 = Moderate Readiness; 3.40–4.19 = High Readiness; 4.20–5.00 = Very High Readiness.

The results indicate that both Animation and Cookery students demonstrated high socio-emotional readiness, with overall means of 3.76 (SD = 0.888) and 3.72 (SD = 1.018), respectively. Across all three dimensions—self-management, motivation, and self-efficacy—ratings consistently reflected strong emotional regulation, confidence, and persistence, suggesting that TVL learners are well equipped to manage the academic and social demands of college. These findings highlight socio-emotional competence as a shared strength

across both strands.

Students from both groups reported strong self-management skills, particularly in staying calm during challenges and adjusting habits when plans fail, though controlling distractions received slightly lower ratings. Motivation emerged as the strongest component, as students expressed high enthusiasm for higher education, sustained effort in difficult subjects, and clear goal-setting behaviors. Self-efficacy was likewise high, reflecting strong beliefs in their capacity to succeed and recover from setbacks. Consistent with Basileo et al. (2024) and Wang and Zhang (2024), the findings underscore the critical role of motivation and self-belief in fostering academic persistence, resilience, and readiness for postsecondary transitions.

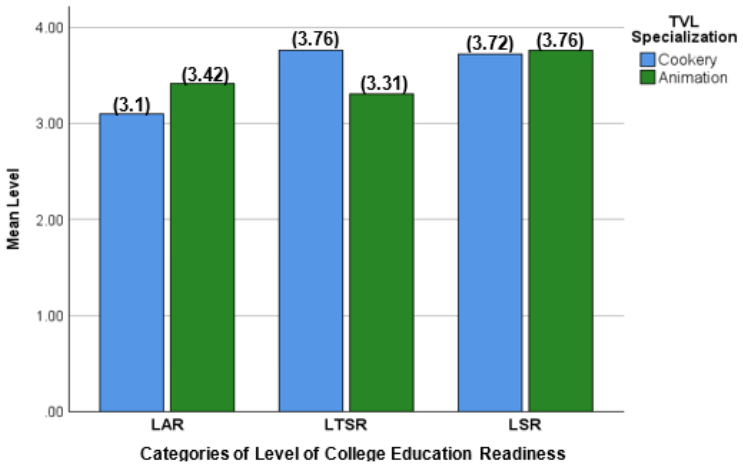

Figure 5. *Level of College Education Readiness Mean Score Distribution by TVL Specialization*

The figure compares the level of college education readiness of TVL–Cookery and TVL–Animation students across three dimensions: academic readiness, technical skills readiness, and socio-emotional readiness. Overall, both groups demonstrate moderate to high readiness, though distinct strengths emerge across domains. TVL–Cookery students scored higher in technical skills readiness (M = 3.76) and socio-emotional readiness (M = 3.72), indicating stronger preparedness in hands-on competencies and emotional management. In contrast, TVL–Animation students exhibited higher academic readiness (M = 3.42) compared to Cookery students (M = 3.10), suggesting greater confidence in academic comprehension and independent learning.

Despite these differences, both groups showed similarly high socio-emotional readiness (Animation M = 3.76; Cookery M = 3.72), highlighting strong motivation, self-efficacy, and emotional regulation—key factors for successful college transition. However, Animation students reported lower technical skills readiness (M = 3.31), pointing to the need for enhanced practice in software proficiency and applied production tasks. Overall, the figure illustrates a complementary readiness profile: Cookery students excel in practical skills, while Animation students demonstrate stronger academic adaptability, with both groups sharing a solid socio-emotional foundation for higher education (Basileo et al., 2024; Jiao et al., 2024; Mardi et al., 2025; Wang & Zhang, 2024).

Table 5. Correlations Between Levels of Academic, Technical Skills, & Socio-Emotional Readiness (LAR, LTSR, & LSR)

Paired Variables	*Pearson Correlation*	*Sig. (2-tailed)*	*Decision*	*Interpretation*
Level of Academic & Technical Skills Readiness (LAR & LTSR)	0.425	<.001	Reject HO1	Significant
Level of Technical Skills & Socio-Emotional Readiness (LTSR & LSR)	0.658	<.001	Reject HO1	Significant
Level of Socio-Emotional & Academic Readiness (LSR & LAR)	0.663	<.001	Reject HO1	Significant

Note. Correlation is significant at the 0.05 level (2-tailed).

The correlation analysis revealed positive, moderate to strong, and statistically significant relationships among academic readiness, technical skills readiness, and socio-emotional readiness, indicating that gains in one domain are associated with improvements in the others. The strongest relationship was found between socio-emotional and academic readiness ($r = .663$, $p < .001$), suggesting that students with higher motivation, self-efficacy, and emotional regulation tend to demonstrate stronger academic performance. This supports Gamboa et al. (2023), who emphasized the central role of socio-emotional competencies in sustaining academic engagement and achievement.

A similarly strong correlation was observed between socio-emotional and technical skills readiness ($r = .658$, $p < .001$), highlighting the influence of emotional resilience, goal orientation, and adaptability on the development of practical competencies. In contrast, the relationship between academic and technical skills readiness, while significant ($r = .425$, $p < .001$), was more moderate, indicating that technical proficiency is supported by academic knowledge but also depends heavily on experiential learning. Consistent with Anguiano-

Carrasco et al. (2022) and Sauli et al. (2022), these findings reinforce the view of college readiness as a multidimensional construct requiring balanced development of cognitive, technical, and socio-emotional capacities for successful transition to higher education.

Table 6. *Multivariate Analysis of Variance (MANOVA) on the Difference Between Levels of Academic, Technical Skills, and Socio-Emotional Readiness Grouped by Demographic Variables*

Source (Covariates)	*Dependent Variables*	*F statistics*	*Sig.*	*Decision*	*Interpretation*
Age	LAR	0.392	1.673	Accept HO2	Not Significant
	LTSR	0.765	1.567	Accept HO2	Not Significant
	LSR	0.302	0.887	Accept HO2	Not Significant
General Weighted Average	LAR	26.949	<.001	Reject HO2	Significant
	LTSR	9.358	0.003	Reject HO2	Significant
	LSR	17.924	<.001	Reject HO2	Significant
Highest Educational Attainment (Father)	LAR	0.131	0.718	Accept HO2	Not Significant
	LTSR	1.131	0.290	Accept HO2	Not Significant
	LSR	1.243	0.268	Accept HO2	Not Significant
Highest Educational Attainment (Mother)	LAR	1.519	0.221	Accept HO2	Not Significant
	LTSR	0.760	0.385	Accept HO2	Not Significant
	LSR	0.462	0.498	Accept HO2	Not Significant

Note. LAR = Level of Academic Readiness; LTSR = Level of Technical Skills Readiness; LSR = Level of Socio-Emotional Readiness.
R^2 values: LAR = .213 (Adjusted R^2 = .183); LTSR = .102 (Adjusted R^2 = .067); LSR = .167 (Adjusted R^2 = .135).
Scale for significance: $p < .05$ = significant.

The MANOVA results revealed that General Weighted Average (GWA) was the only variable that produced statistically significant differences across all three readiness domains—academic ($F = 26.949$, $p < .001$), technical skills ($F = 9.358$, $p = .003$), and socio-emotional readiness ($F = 17.924$, $p < .001$). In contrast, age and parents' educational attainment did not yield significant effects ($p > .05$). This underscores GWA as a strong and consistent predictor of college readiness, supporting prior studies that identify academic performance as a key indicator of preparedness across multiple domains (Iachini et al., 2023). Similarly, Sauli, Wenger, and Fiori (2022) noted that readiness-related competencies are more closely linked to performance and engagement than to demographic characteristics.

The model's explanatory power—Adjusted R^2 values of .183 for academic readiness, .067 for technical skills readiness, and .135 for socio-emotional readiness—suggests that while GWA plays a meaningful role, readiness is shaped by additional factors such as instructional quality, experiential learning opportunities, support systems, and individual motivation. These findings reinforce the conceptualization of college readiness as a multidimensional construct in which cognitive achievement interacts with technical and affective capacities. Consistent with Magnaye (2020), the results indicate that strengthening holistic readiness among TVL learners requires not only academic support but also targeted interventions in technical training and socio-emotional development.

Conclusions

The study concludes that TVL students demonstrate overall moderate to high readiness for college across academic, technical, and socio-emotional domains. While students show strengths in collaborative participation, hands-on technical skills, and socio-emotional competencies such as motivation and self-efficacy, areas such as independent learning, adaptive problem-solving, and sustained focus require further development. The positive interrelationships among academic, technical, and socio-emotional readiness highlight the interconnected nature of these capacities, while General Weighted Average (GWA) emerges as a key predictor of overall preparedness. These findings emphasize the importance of holistic interventions that integrate experiential learning, scenario-based problem-solving, and reflective practices to support balanced growth across cognitive, technical, and affective domains. By fostering these multidimensional competencies, educators can better prepare TVL students for successful transitions to higher education and future professional environments.

Based on the conclusion, the following are the proposed recommendations:

Implement a College Education Readiness Program: The school should establish a comprehensive program aimed at enhancing the overall preparedness of TVL students for higher education. This program should address academic, technical, and socio-emotional domains to ensure students develop autonomous learning skills, adaptive competencies, and emotional regulation critical for college success.

Enhance Academic Readiness: Structured workshops on study strategies, time management, note-taking, and independent research should be provided. Activities like peer tutoring, mentoring, and guided study sessions can reinforce essential academic skills, foster self-directed learning, and improve students' ability to complete tasks efficiently and confidently.

Strengthen Technical Skills Readiness: Problem-based and scenario-driven activities should be integrated to simulate real-world challenges in each strand. Cookery students may engage in advanced culinary problem-solving, while Animation students work on complex project tasks. These activities promote adaptive decision-making, troubleshooting, and practical application of skills.

Develop Socio-Emotional Readiness: Interventions like stress-management workshops, goal-setting activities, and resilience-building

sessions should be implemented. Mentoring, reflective practices, collaborative tasks, and controlled exposure to academic pressures can help students manage emotions, strengthen motivation and self-efficacy, and persist through challenges.

Regular Monitoring and Evaluation: The program's effectiveness should be regularly assessed through pre- and post-readiness evaluations. Student and teacher feedback must guide ongoing improvements, ensuring the program adapts to TVL learners' evolving needs and prepares them for the academic, technical, and socio-emotional demands of higher education.

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Affiliations and Corresponding Information

Jastine P. Trinidad
Lourdes Empinado National High School
Department of Education – Philippines
jptrinidad1995@gmail.com

Daisy L. Obiso
Cebu Technological University
Barili Campus – Philippines

Jasper Pabroa
Bartolome and Manuela Pañares Memorial National High School
Department of Education – Philippines