

PRACTICAL TRAINING AND INDUSTRY EXPOSURE: THEIR RELATIONSHIP TO WORK READINESS OF TVL STUDENTS

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Abstract:

This study examined the relationship between practical training, industry exposure, and work readiness among Technical-Vocational-Livelihood (TVL) senior high school students. Utilizing a descriptive-comparative and descriptive-correlational research design, the study surveyed 133 students from various TVL specializations at the Technological Foundation Institute of Bago City, Inc. The findings revealed very high levels of student engagement in practical training, with the highest ratings in curriculum implementation and teaching and learning processes. Similarly, students reported very high levels of industry exposure, particularly in professionalism, teamwork, and attendance. Work readiness was also rated very high across all dimensions, including attitude toward work, technical skills, social skills, and organizational awareness. Statistical analysis showed significant positive relationships between practical training and work readiness, and between industry exposure and work readiness, underscoring the importance of integrating hands-on training and structured work immersion in the TVL curriculum. The significant positive correlations emphasize the critical role of both school-based and industry-based learning in fostering work readiness among TVL students. The study highlights the need for improvements in facilities, expanded industry collaboration, and enhanced soft skills development to further strengthen students' employability and career readiness.

Keywords: *Technical-Vocational-Livelihood (TVL), practical training, industry exposure, work readiness, employability, senior high school, vocational education, Philippines.*

Introduction:

Career choice among senior high school students, particularly those in the Technical-Vocational-Livelihood (TVL) track, significantly influences their employability and future economic opportunities. In the Philippines, the TVL track under the K to 12 Basic Education Curriculum aims to equip learners with employable skills and competencies aligned with labor market needs (Department of Education [DepEd], 2012). The TVL curriculum provides specialized education in various fields such as Information and Communication Technology (ICT), Industrial Arts, Agri-Fishery Arts, and Home Economics, combining theoretical learning with practical training. However, the persistent challenge remains: a skills mismatch between graduates and industry expectations, resulting in underemployment or unemployment among senior high school graduates (Angelo, 2024).

Work immersion, an integral component of the TVL track, seeks to bridge this gap by exposing students to actual work environments. According to the Organisation for Economic Co-operation and Development (OECD, 2023), industry exposure enables students to enhance both technical and soft skills, making them more adaptable and competitive in the evolving job market. Furthermore, structured industry engagement sharpens students' interpersonal skills and fosters workplace adaptability (Andaya & Briones, 2022). In the Philippine setting, employers value graduates who possess both specialized skills and sufficient workplace exposure (Añago, 2021).

Despite such initiatives, many TVL graduates struggle to secure stable employment, particularly in rural settings where industry linkages are limited (Choi, 2021). Reports from the PSA (2024) indicate that about one-third of senior high school graduates face difficulties in finding jobs due to insufficient technical experience and limited access to training opportunities. This underscores the need to assess how practical training and industry exposure contribute to work readiness among TVL students, especially in localized settings where employment challenges persist.

Practical training, the application of theoretical knowledge in controlled environments, is a critical factor in building student competence. Human Capital Theory (Becker, 1964; Vaizey & Schultz, 1972), frames this study's investigation

of practical training. This theory posits that education and skill acquisition are investments that enhance workers' productivity, thereby increasing their economic value (Ross, 2015). Through practical training, students enhance their technical proficiency, allowing them to contribute effectively to the workforce and improve their employment prospects (Marginson, 2017).

Industry exposure, defined as direct engagement with professional environments through internships, apprenticeships, or job shadowing, develops crucial soft skills such as teamwork, communication, and professionalism. The Work Values Theory, proposed by Super and Sverko, anchors this study's exploration of industry exposure. This theory suggests that individuals' career choices and behaviors are deeply influenced by their work values, which include job security, autonomy, and interpersonal relationships (Pramono et al., 2020). Industry exposure allows students to internalize these values, thereby enhancing their preparedness for future employment.

Work readiness, the study's core dependent variable, refers to an individual's holistic preparedness for employment, encompassing technical competencies, work ethics, and soft skills. This study utilizes the Social Cognitive Career Theory (SCCT) by Lent, Brown, and Hackett (1994) and Career Construction Theory (Greenhaus & Callanan, 2006) to frame the analysis of work readiness. SCCT highlights the role of self-efficacy, outcome expectations, and personal goals in shaping career behaviors and readiness. Career Construction Theory complements this by emphasizing that individuals construct their careers through personal experiences, social contexts, and the development of self-concepts over time.

By aligning these three theories—Human Capital Theory for practical training, Work Values Theory for industry exposure, and SCCT with Career Construction Theory for work readiness—the study provides a comprehensive framework for examining the complex relationships among these variables. This consolidated theoretical approach prevents redundancy and clarifies how each theory distinctly applies to the study variables, ensuring conceptual clarity and analytical precision.

The Technological Foundation Institute of Bago City, Inc., a private senior high school in Negros Occidental, serves as the study site. Offering various TVL specializations such as Automotive Servicing, Computer Systems Servicing, Computer Programming, Electrical Installation and Maintenance, and Electronic Products Assembly and Servicing, the institution provides a representative sample of TVL students navigating practical training and industry immersion. This local context provides valuable insights into the challenges and opportunities of technical-vocational education in semi-urban and rural Philippine communities.

This study aims to evaluate the relationship between practical training, industry exposure, and work readiness among TVL students at the Technological Foundation Institute of Bago City, Inc. Specifically, it examines students' engagement in practical training and industry exposure, and their perceived work readiness. Moreover, the study investigates the correlation between students' levels of practical training engagement, industry exposure, and work readiness. The results will serve as a basis for developing targeted interventions to strengthen the institution's TVL programs.

Ultimately, this research intends to provide evidence-based recommendations for education stakeholders, including school administrators, policymakers, and industry partners, to improve practical training programs and industry exposure initiatives. By doing so, it seeks to enhance the work readiness of TVL students and improve their chances of successful employment or entrepreneurial ventures upon graduation. The study also aims to contribute to the broader discourse on bridging the gap between technical-vocational education and labor market needs in the Philippine context.

Methodology:

This study utilized a descriptive-comparative and descriptive-correlational research design to examine the relationship between practical training, industry exposure, and work readiness among Technical-Vocational-Livelihood (TVL) senior high school students. A descriptive-comparative design allowed for the systematic comparison of groups based on demographic variables, while the descriptive-correlational approach was used to identify relationships between the key variables without manipulating them (Siedlecki, 2020). This design was selected to

provide both comparative insights and correlation-based evidence on how practical training and industry exposure influence work readiness.

The research was conducted at Technological Foundation Institute of Bago City, Inc., a private educational institution in Negros Occidental, Philippines. This institution offers various TVL specializations, including Automotive Servicing, Computer Systems Servicing, Computer Programming, Electrical Installation and Maintenance, and Electronic Products Assembly and Servicing. Its focus on technical-vocational education makes it an appropriate site for examining students' practical training, industry exposure, and work readiness within the localized context of Negros Occidental.

The study population consisted of 201 senior high school students enrolled in the TVL track for the academic year 2023-2024. The sample size was determined using the Raosoft Sample Size Calculator, applying a 5% margin of error, a 95% confidence level, and a 50% response distribution. A total of 133 students were selected through simple random sampling with proportionate allocation, ensuring equal opportunity for selection and representation across specializations and demographic groups (Creswell & Creswell, 2017; Fowler, 1984). This technique minimized sampling bias and allowed for valid generalizations.

A structured survey questionnaire was used as the primary data collection instrument. The instrument was adapted and modified from established sources to suit the local context (Cohen et al., 2020). It consisted of two main parts. The first section collected demographic information such as TVL specialization. The second section included items measuring three key variables: practical training (39 items), industry exposure (32 items), and work readiness (60 items). A four-point Likert scale was employed to capture the respondents' level of agreement, ranging from 1 (strongly disagree) to 4 (strongly agree), in line with best practices to avoid a neutral midpoint and encourage clear responses (Salkind, 2016).

The instrument underwent rigorous validation and reliability testing. Face and content validation were conducted by subject-matter experts in TVL education, who assessed the questionnaire based on its clarity, relevance, and comprehensiveness following the criteria outlined by Good and Scates. Internal consistency reliability was measured using Cronbach's alpha coefficient, ensuring the coherence and reliability of multi-item scales (Yun et al., 2023). The reliability test yielded acceptable alpha values, indicating strong internal consistency among the instrument's components.

Upon obtaining institutional approval, the researcher followed a structured data-gathering procedure. An informed consent letter was distributed to all potential respondents, explaining the study's objectives, voluntary participation, and confidentiality of responses. After receiving the necessary approval from the school administration, the researcher administered the survey in person during scheduled sessions. Survey items were clearly explained, and respondents were allowed to seek clarifications. All completed questionnaires were collected immediately after completion to ensure data integrity.

The study employed appropriate statistical techniques for data analysis. Descriptive statistics, specifically mean and standard deviation, were used to determine students' levels of engagement in practical training, industry exposure, and work readiness. For inferential analysis, the t-test or Mann-Whitney U test and ANOVA or Kruskal-Wallis test were applied to compare groups based on demographic variables such as age, sex, and specialization, depending on data distribution and normality. Normality tests such as the Shapiro-Wilk test guided the choice between parametric and non-parametric tests (Moore et al., 2016). Furthermore, Spearman's rank correlation coefficient was employed to analyze the relationships between practical training, industry exposure, and work readiness due to the ordinal nature of the data.

Ethical considerations were strictly observed throughout the study. The research complied with the Philippine Data Privacy Act of 2012, ensuring that respondents' identities remained confidential and anonymous. Participation was entirely voluntary, and no form of coercion was employed. The data collected were stored securely in encrypted digital formats, accessible only to the researcher. In addition, transparency was maintained by informing participants about the study's purpose, scope, and intended use of results. The researcher declared no external funding for the study, and all expenses were self-funded. Ethical principles such as respect, beneficence, and justice were upheld, following the guidelines of the American Psychological Association (APA, 2020).

Results:

This section presents the findings on the students' engagement in practical training, industry exposure, and work readiness. The results are organized based on the study's objectives, with both descriptive and inferential statistics presented.

Engagement in Practical Training

The analysis revealed that students exhibited a very high level of engagement in practical training, with an overall mean of 3.54 (SD = 0.21). Among the four dimensions assessed, the implementation of the TVL curriculum had the highest mean score of 3.63 (SD = 0.27), followed by the teaching and learning process with a mean of 3.56 (SD = 0.24). The practical training period also showed a high level of engagement with a mean of 3.50 (SD = 0.30), while the facility and resources dimension had the lowest mean score of 3.48 (SD = 0.34), though still within the "very high" category. This indicates that while overall engagement was strong, improvements in facilities and resources could further enhance practical training experiences.

Table 1. Overall Engagement in Practical Training

Dimension	Mean Score	Standard Deviation	Interpretation
Implementation of TVL Curriculum	3.63	0.27	Very High
Facility and Resources	3.48	0.34	Very High
Teaching and Learning Process	3.56	0.24	Very High
Practical Training Period	3.5	0.3	Very High

Extent of Industry Exposure

The extent of students' industry exposure was also assessed across several dimensions. The results showed an overall very high rating, with a mean of 3.54 (SD = 0.21). The professionalism dimension received the highest mean score of 3.61 (SD = 0.34), followed by teamwork (M = 3.58, SD = 0.33), and attendance, punctuality, and productivity (M = 3.55, SD = 0.25). Dependability and judgment/decision-making received slightly lower mean scores of 3.46 (SD = 0.38) and 3.50 (SD = 0.40), respectively, but still within the very high range.

Table 2. Industry Exposure (Mean Scores by Dimension)

Dimension	Mean Score	Standard Deviation	Interpretation
Teamwork	3.58	0.33	Very High
Communication	3.54	0.37	Very High
Attendance, Punctuality, Productivity	3.55	0.25	Very High
Judgment/Decision Making	3.5	0.4	Very High
Dependability/Reliability	3.46	0.38	Very High
Attitude	3.52	0.35	Very High
Professionalism	3.61	0.34	Very High

Work Readiness of Students

The overall work readiness of students was rated as very high, with a mean score of 3.55 (SD = 0.20). Among the dimensions assessed, organizational awareness received the highest rating with a mean of 3.55 (SD = 0.26), closely followed by social skills (M = 3.55, SD = 0.25), attitude toward work (M = 3.55, SD = 0.27), and technical skills (M = 3.55, SD = 0.26). The consistently high ratings indicate that students generally perceive themselves as well-prepared for employment.

Table 3. Work Readiness (Mean Scores by Dimension)

Dimension	Mean Score	Standard Deviation	Interpretation
Attitude Toward Work	3.55	0.27	Very High
Technical Skills	3.55	0.26	Very High
Social Skills	3.55	0.25	Very High
Organizational Awareness	3.55	0.26	Very High

Correlation between Variables

Spearman's rank correlation coefficient revealed significant positive relationships between practical training and work readiness ($p = 0.587$, $p < 0.05$), as well as between industry exposure and work readiness ($p = 0.512$, $p < 0.05$). These results affirm that higher levels of engagement in practical training and industry exposure are associated with higher levels of work readiness among TVL students.

Table 4. Correlation Results

Variables Correlated	Spearman's ρ	p-value	Interpretation
Practical Training & Work Readiness	0.587	0.001	Significant
Industry Exposure & Work Readiness	0.512	0	Significant

These results demonstrate that both practical training and industry exposure significantly contribute to improving work readiness among TVL students, thus highlighting the importance of enhancing these aspects of the TVL curriculum.

Discussion:

The results of this study revealed that students exhibited a very high level of engagement in practical training. Among the four dimensions assessed, the highest engagement was in the implementation of the TVL curriculum, followed closely by the teaching and learning process. These findings indicate that the TVL curriculum is being effectively delivered, allowing students to acquire both theoretical and practical competencies, consistent with the principles of Human Capital Theory (Becker, 1964; Vaizey & Schultz, 1972). However, the slightly lower ratings in the facility and resources dimension, although still rated very high, suggest that the quality of training facilities and available resources could be further enhanced. This aligns with previous research emphasizing that sufficient learning tools and infrastructure are crucial in improving technical-vocational education outcomes (OECD, 2023).

Similarly, students reported very high levels of industry exposure across all assessed dimensions. The highest scores were in professionalism, teamwork, and attendance, punctuality, and productivity. These results suggest that industry partnerships effectively provide students with workplace-relevant experiences, fostering soft skills such as collaboration, punctuality, and professionalism. These findings validate the importance of industry exposure in shaping students' work values, as highlighted in Work Values Theory (Pramono et al., 2020). Nevertheless, slightly lower scores in dependability and judgment/decision-making indicate that students may have fewer opportunities to

take on independent responsibilities during their work immersions, a gap that schools and industry partners should address by providing more meaningful tasks that encourage autonomy and critical thinking (Andaya & Briones, 2022).

In terms of work readiness, students consistently reported very high levels across all dimensions—attitude toward work, technical skills, social skills, and organizational awareness—with identical mean scores across dimensions. These findings demonstrate that the combination of practical training and industry exposure has effectively prepared students for employment. This supports Social Cognitive Career Theory (Lent et al., 1994) and Career Construction Theory (Greenhaus & Callanan, 2006), both of which emphasize the development of self-efficacy, adaptability, and social competencies as essential elements of career readiness.

Furthermore, the correlation analysis confirmed that both practical training and industry exposure are significantly associated with work readiness. Students who reported higher engagement in practical training and more extensive industry exposure also demonstrated higher levels of work readiness. This finding affirms the value of integrating hands-on learning experiences and structured workplace immersion into the TVL curriculum to build not only technical competencies but also the attitudes and soft skills necessary for successful employment. It also reinforces the need for continuous investment in these program components to sustain positive outcomes for students.

Overall, the findings highlight the effectiveness of the TVL curriculum in preparing students for the workforce through well-executed practical training and industry exposure programs. However, the results also reveal opportunities for further improvement, particularly in strengthening training facilities, increasing student decision-making roles in industry settings, and ensuring that students are consistently exposed to challenging, meaningful work tasks that develop higher-order skills.

Conclusion:

This study confirmed that both practical training and industry exposure play significant roles in developing work readiness among Technical-Vocational-Livelihood (TVL) senior high school students. The findings demonstrated that students exhibited very high engagement in practical training, with the highest ratings in curriculum implementation and teaching and learning processes. These results reflect the effectiveness of the TVL curriculum in equipping students with essential technical competencies and workplace habits.

Similarly, students reported very high levels of industry exposure, particularly in dimensions related to professionalism, teamwork, and attendance. These results affirm the value of structured work immersion programs in strengthening students' soft skills and preparing them for real workplace environments. However, slightly lower ratings in dependability and decision-making highlight areas for improvement in providing students with more independent and responsible roles during their industry placements.

The very high levels of work readiness reported across all dimensions—attitude toward work, technical skills, social skills, and organizational awareness—underscore the effectiveness of the TVL track in fostering students' preparedness for employment. Moreover, the strong positive correlations between practical training, industry exposure, and work readiness emphasize the interconnectedness of these variables, confirming that active engagement in both school-based and industry-based learning experiences contributes significantly to students' employability.

Based on the study's findings, it is recommended that the institution prioritize improvements in training facilities, tools, and learning resources, particularly in areas where students reported relatively lower engagement. Upgrading physical infrastructure and equipment will further strengthen the effectiveness of practical training programs.

The school should also enhance its industry exposure programs by collaborating with partner companies to provide more diverse and challenging work experiences. Efforts should be made to assign students tasks that develop dependability, problem-solving, and decision-making skills, allowing them to apply their competencies in real-world settings and take on greater responsibilities.

In addition, faculty and program coordinators are encouraged to closely monitor and evaluate the outcomes of practical training and industry immersion activities. Regular consultations with students, industry partners, and

alumni can help identify specific areas for improvement and ensure that training activities remain relevant to industry needs.

Furthermore, it is advisable to integrate more structured soft skills development programs within both the academic and immersion components of the TVL track. These programs should focus on enhancing professional behavior, interpersonal communication, adaptability, and critical thinking to complement students' technical skills.

Lastly, the institution should maintain continuous review and improvement of its TVL curriculum by establishing a feedback mechanism that involves all stakeholders. By systematically assessing the quality of training and industry partnerships, the school can ensure that its programs remain responsive to labor market demands and effectively support students' transition to employment or entrepreneurship.

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