

Teachers' Difficulties Under Technical-Vocational Livelihood Track

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Cecile Q. Martos

Teacher III, Demetrio L. Alviola National High School, Philippines

<https://orcid.org/0009-0007-3742-2177>

Dr. Antonieta C. Olores

District Supervisor, Bindoy District 1, Philippines

<https://orcid.org/0009-0003-1068-360X>

Abstract:

The Technical-Vocational Livelihood (TVL) track is one of the educational programs that aims to provide students with practical skills and knowledge to prepare them for the workforce. The key purpose of this study is to find out the teachers' difficulties under the TVL track in a large-sized division in Central Visayas during School Year 2023-2024 as a basis for a development plan. Descriptive research was conducted, and a 32-item survey questionnaire was used to gather data from sixty-five (65) TLE/TVL teachers and find out their difficulties under the TVL track. The results revealed moderate difficulties teachers experienced under the TVL track in facilities and material resources, stakeholders' support, learning materials, qualifications, and industry experience. There was a significant difference in teachers' difficulties under the TVL track in all four areas when compared to age. In addition, a significant difference was found in stakeholders' support, qualifications, and industrial experience, according to sex. Moreover, a significant difference was also in the area of facilities and materials resources according to plantilla position. This calls for education planners and policymakers to give more attention to TVL tracks by providing teachers with training, facilities, and learning materials. Stakeholders should also support them to equip students with the necessary skills and knowledge to meet the needs of the labor market.

Keywords: Teachers' difficulty, Technical-Vocational Livelihood, Track

Introduction:

Nature of the Problem

Education is an ever-evolving field that can open up new horizons for people and enable them to see the world differently. It is a gateway to numerous opportunities, and to stay relevant in this dynamic world, teachers at the forefront of education must have the necessary skills and competencies to support and implement change (Darling-Hammond et al., 2017).

The Enhanced Basic Education Act of 2013 emphasizes the value of quality education over mere quantity. It aims to provide K-12 students with the essential skills and knowledge needed for employment and further education. For this, the Department of Education introduced the Technical-Vocational-Livelihood (TVL) track, which aims to provide students with practical skills and knowledge to meet the needs of the labor market (Ferrer, 2022). In addition, the availability of facilities, learning materials, teachers' qualifications, and stakeholders' support is an important factor to consider when teaching TVL tracks. However, due to the unavailability of such resources, it is difficult for teachers to teach TLE and TVL tracks (Villegas, 2022).

In the present research locale, the researcher, who has held the position of a TVL teacher specializing in home economics for numerous years and currently serves as a Technology and Livelihood Education (TLE) teacher in a junior high school, has also encountered a range of difficulties, such as insufficient laboratory materials and equipment, a lack of support from industry partners, an inconducive learning environment, and a lack of teacher training.

In response to this concern, the researcher sought to delve into the authentic classroom experience to uncover gaps within the four corners of the classrooms. This study aimed to uncover the difficulties faced by teachers in teaching TLE and TVL tracks in the junior and senior high schools of the two municipalities in the province. The findings on teachers' difficulties in teaching specialized subjects in TLE and TVL strands will be used to develop an action plan to meet the demands of 21st-century skills.

Current State of Knowledge

Vocational and technical education plays a crucial role in economic growth by equipping individuals with the skills, knowledge, and competencies needed for employment, which are best acquired through school-industry collaboration and work-based learning (Nathaniel, Lawson & Obed, 2019). However, challenges in implementing technical and vocational education persist, including inadequate equipment and facilities, limited stakeholder participation, scarcity of learning materials, and a lack of industry experience among TVL teachers (Norton & Norton, 2019).

Technology and Livelihood Education (TLE) is a crucial part of the Philippine curriculum, covering home economics, ICT, agri-fishery, and industrial arts to prepare students for the workforce (Jacolbia, 2016). With the K-12 implementation, the demand for technical and vocational teachers has risen, leading many non-education graduates to take education units to qualify for teaching. However, some non-TLE teachers handle TLE subjects despite lacking formal training, relying on self-study, peer tutorials, and technology. While this helps fill teacher shortages, it affects both instructional quality and teachers' professional rights, highlighting the need for properly trained and qualified educators.

Güngör (2020) noted that TVL teachers often use outdated or inadequate materials, with some equipment entirely unavailable in schools, while the workforce is aging and overlooked, and industry software remains obsolete, hindering technological advancement. To address this, vocational training programs should be revised to align with industry demands by increasing hands-on courses and reducing theoretical lessons. Similarly, Briggs (2019) emphasized the critical role of modern equipment and facilities in achieving quality education, stating that integrating instructional materials into learning is essential for meeting educational objectives and enhancing the teaching and learning process.

The lack of facilities, equipment, and materials presents a major challenge for TLE and TVL teachers, hindering the effective implementation of hands-on learning, particularly in agri-fishery arts and other TVL strands (Geraldizo & Dabasol, 2022). Inadequate resources negatively impact students' ability to acquire industry-relevant skills and contribute to poor academic achievement (Bawar, 2019). Teachers assigned to subjects outside their expertise face additional struggles due to resource scarcity (Tingzon & Buyok, 2022). Moreover, limited infrastructure, outdated equipment, and poor internet connectivity further compromise the educational process, restricting access to online resources and interactive learning opportunities (Lozaga, 2024; Padrillo, 2020). Addressing these deficiencies is crucial for improving TLE and TVL education.

Stakeholder support plays a crucial role in reducing the challenges TVL teachers face, as repositioning technical and vocational education requires active involvement from all stakeholders to help individuals reach their full potential (Aneke, 2023). Establishing partnerships between educational institutions and industries is vital for shaping curricula, developing relevant skills, and aligning education with job market demands (Jackson & Tomlinson, 2020). However, resource limitations can hinder these collaborations, making adequate funding essential for providing infrastructure, training, and networking opportunities (Subbarayalu, 2022). Strengthening academia-industry partnerships ensures enriched learning experiences, real-world exposure, and improved employability for students.

The lack of stakeholder support poses a significant challenge for TLE and TVL programs, requiring schools and teachers to actively foster engagement, build strong relationships, and highlight stakeholders' crucial roles in student success, particularly in the New Normal (Dimaculangan et al., 2021). Strengthening collaboration between schools and stakeholders enhances modular distance learning and improves the teaching process (De Torres, 2021). Industry partnerships play a vital role in enriching TLE programs by aligning curricula with market demands, providing access to resources, and offering hands-on training opportunities (Kilag et al., 2023). These collaborations help students develop essential technical and soft skills, gain real-world exposure, and build industry connections, ensuring they are well-prepared for future careers.

Teacher qualifications significantly impact their careers by enhancing skills and motivation for professional growth (Sharma, 2018). However, barriers such as ineffective training content, poor course planning, financial constraints, and limited professional opportunities hinder qualification development (Eroglu & Kaya, 2021). Effective teacher training should focus on subject knowledge, pedagogy, and teaching techniques (Singha & Sikdar, 2018). Additionally, industry experience influences teaching methods, with experienced teachers integrating real-world applications, while those without such experience rely on academic perspectives (Hu, 2019). Teachers with industry backgrounds tend to adopt hands-on approaches, though the link between industry experience and teaching strategies remains complex (Hola & Lee, 2020; Burns, 2012).

Theoretical Underpinnings

The present study is grounded in Perkins' (2007) theory of difficulty, which emphasizes identifying and analyzing learners' trouble spots to enhance teaching and learning. A strong theory of difficulty explains why certain challenges arise and categorizes them into conceptual difficulties, ritualized knowledge, inert knowledge, overly foreign knowledge, and tacit knowledge. Research has shown that effective teaching involves moving beyond merely blaming learners or increasing instructional time without analyzing the root causes of difficulties. Instead, the most effective

approach is to "teach smarter" by refining strategies based on causal analysis and experience, ensuring that instructional methods address students' needs more effectively.

In this study, the theory of difficulty is applied to explore teachers' challenges in the TVL track and their strategies for overcoming them. Individual perspectives play a crucial role in defining whether a problem is seen as a challenge or a limitation. Teachers' ability to recognize and analyze difficulties influences their capacity to develop solutions and improve their teaching effectiveness. By understanding these challenges and adapting their approaches accordingly, teachers can enhance their instructional methods, making learning more accessible and meaningful for students under the TVL track.

Objectives

This study aimed to determine the level of teachers' difficulties under the technical-vocational livelihood track in an enormous division in Central Visayas during the School Year 2023-2024 as a basis for a development plan. Specifically, it sought to answer the following questions: 1) the level of teachers' difficulties under the TVL track under the area of facilities and material resources, stakeholders' support, learning materials and qualifications and industrial experience; and 2) the a significant difference between the levels of teachers' difficulties under the TVL track when grouped and compared according to the aforementioned variables.

Methodology:

This section presents the discussion of the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedure for data analysis.

Research Design

This study utilized a descriptive research design to assess the level of teachers' difficulties under the TVL track in a large-sized division in Central Visayas during the School Year 2023-2024 as a basis for a development plan. Descriptive research analyzes numeric data to present existing conditions and is widely used in both qualitative and quantitative studies (Creswell, 2015). This approach allowed the researcher to gather information through questionnaires, interviews, and observations, providing a clear depiction of teachers' challenges. The findings were presented in graphs, charts, and tables to ensure clarity and ease of interpretation.

Study Respondents

The study's respondents were the 65 TLE or TVL teachers of the two municipalities in Central Visayas. Purposive sampling was used. Purposive sampling is a form of non-probability sampling in which researchers rely on their judgment when choosing population members to participate in the study. Researchers use purposive sampling to access a particular subset of people, as all survey participants are selected because they fit a particular profile (Ames et al., 2019).

Instruments

The study utilized a researcher-made questionnaire. The researcher made a questionnaire that has two parts. The first part comprises the personal profile of the parents in terms of age, sex, average family monthly income, plantilla position, and highest educational attainment. The second part of the questionnaire answers teachers' difficulties in understanding TLE and TVL tracks. The teachers' level of difficulties is split into facilities and materials resources, stakeholders' support, learning resources, and qualifications and industrial experience. It was composed of 8 items per area with 32 items. The respondents were asked to rate each item using the five-point Likert scale, which contains the following scores: 5 – Always; 4 – Often; 3 – Sometimes; 2 – Rarely; and 1 – Almost Never. The average rating of the three jurors was used as basis for the validity of the instrument. Validation average is 4.83, interpreted as "excellent". This showed that the research instrument was "Valid". And the reliability result was 0.892 which signifies that said instrument is highly reliable.

Data Gathering Procedure

For the smoother conduct of the study, the researcher employed the following procedures: The researcher sent a letter of request for the conduct of the study to the Office of Schools Division Superintendent. Upon approval, a separate letter was also sent to the school heads of all component schools, which was attached to the approved letter from the superintendent. After securing approval for the second request, the school heads of every school sent the research instrument to their TLE and TVL teachers electronically. At the same time, a hard copy was provided to teachers with no internet connection in their area. The researcher also included his contact number and Messenger account in the research instrument in case some teachers encounter difficulty answering the instrument.

Data Analysis and Statistical Treatment

Objective No. 1 used the descriptive analytical scheme and mean to determine the level of teachers' difficulties under TVL tracks in facilities and material resources, stakeholders' support, learning materials qualifications, and industrial experience.

Objective No. 2 used the comparative analytical scheme and Mann-Whitney U test to determine the significant difference in teachers' difficulties under TVL tracks when grouped and compared according to the aforementioned variables.

Ethical Consideration

This research paper strove to minimize the risk of harm to its target respondents by assuring them of the confidentiality of their responses and ensuring their anonymity throughout the entire research process. At the onset, this researcher secured their free, prior informed consent and assured them of their right to withdraw from their research participation if deemed necessary. No personal data compromising the respondents' identity was collected in adherence to the Data Privacy Act of 2012, specifically on accessing the data both by the researcher and the analyst. The respondents were assured that no information that discloses their identity will be released or published without their consent, except when extremely necessary. All collected materials were appropriately disposed of by machine shredding or dissolved in water after submitting the study. At the same time, soft copies of the data were deleted, leaving no chance of future retrieval.

Results and Discussion:

This section deals with the presentation, analysis and interpretation of data gathered to carry out the objectives of this study. All these were made possible by following certain appropriate procedures so as to give the exact data and solution to each specific problem.

Table 1

Level of Teachers' Difficulties under the TVL Track according to the Facilities and Material Resources

Items	Mean	Interpretation
<i>As a teacher, I am having difficulties in...</i>		
1. the laboratory arrangements and design for TLE or TVL tracks.	3.35	Moderate Level
2. the modernity and technology capability of the classrooms.	3.25	Moderate Level
3. the peripherals and internet connectivity of the computer laboratory.	3.69	High Level
4. suitability of tools, gadgets, and equipment for TLE or TVL tracks.	3.37	Moderate Level
5. the classroom's physical structures like tables, desks, chairs, cabinets, and bulletin boards.	3.02	Moderate Level
6. the availability of health-promoting amenities and student services (school clinic, canteen, drinking fountain, and related aspects).	3.29	Moderate Level
7. the availability of an instructional room for actual or hands-on activities on TLE or TVL tracks.	3.38	Moderate Level
8. the maintenance, safekeeping, and repairs of facilities and equipment.	3.28	Moderate Level
Overall Mean	3.33	Moderate Level

Table 1 presents the level of difficulties teachers experience under the TVL track regarding facilities and material resources. The respondents obtained an overall mean score of 3.33, interpreted as a moderate level.

Looking more closely at the table, the respondents got the lowest mean score of 3.02 on item 5, which was about having trouble with the physical structures of the classroom, such as the tables, desks, chairs, cabinets, and bulletin boards, which was seen as a moderate level. On the other hand, the highest mean score of 3.50 was on item 3, stating difficulty in the peripherals and internet connectivity of the computer laboratory interpreted as a high level.

The result suggests that most respondents who answered have trouble using technology to help teach in the TVL track because the computer lab does not have the right peripherals. The internet connection is not always stable. This situation hampers their ability to effectively engage students and utilize various digital tools, ultimately impacting the overall quality of education. Therefore, educational institutions must address these infrastructural challenges to enhance the teaching and learning experience in the TVL track.

The finding is supported by Lozada (2024), wherein inadequate internet access hinders the effectiveness of the training program, limiting learners' ability to access online resources, participate in interactive activities, and use essential tools necessary for a comprehensive education. Additionally, outdated hardware and insufficient IT support can exacerbate connectivity issues. Infrastructure in certain areas is not supported by high-speed internet, or

budgetary constraints might prevent upgrading existing facilities. Likewise, Padrillo (2020) affirmed that there was less internet connectivity in the TLE laboratory and during classroom instruction.

Table 2

Level of Teachers' Difficulties under TVL Track according to the Stakeholders' Support

Items	Mean	Interpretation
<i>As a teacher, I am having difficulties in...</i>		
1. encouraging partnership arrangements with various stakeholders relative to the TLE or TVL implementation through the Memorandum or Memoranda of Agreement.	3.16	Moderate Level
2. engaging the private sector in curriculum review to strengthen the curriculum of the TLE or TVL track.	3.18	Moderate Level
3. establishing new alliances and optimizing social engagement for different local businesses.	3.24	Moderate Level
4. working with business partners to give students access to internship opportunities, industry-relevant skills, and real-world work situations.	3.25	Moderate Level
5. involving stakeholders in selected TLE or TVL programs and activities.	3.14	Moderate Level
6. forming a formal collaboration with local industries for students who will undergo work immersion.	3.22	Moderate Level
7. encouraging stakeholders to participate in the planning and decision-making for the TLE or TVL track-related activities.	3.18	Moderate Level
8. asking for stakeholders' assistance in procuring equipment and materials for TLE or TVL tracks.	3.22	Moderate Level
Overall Mean	3.20	Moderate Level

Table 2 shows the level of difficulties teachers experience regarding stakeholders' support under the TVL track. The respondents obtained an overall mean score of 3.20, interpreted as a moderate level.

Investigating the table further, the respondents obtained the lowest mean of 3.14 on item 5, which stated difficulty in involving stakeholders in selected TLE or TVL programs and activities at a moderate level. On the other hand, the highest mean score of 3.25 was on item 4, stating difficulty in working with business partners to give students access to internship opportunities, industry-relevant skills, and real-world work situations interpreted as a moderate level.

The result implies that most respondents encountered difficulty working with business partners to give students access to internship opportunities, industry-relevant skills, and real-world work. This is because few local businesses follow the school's TVL track. In addition, some companies refuse to accept student interns as they do not have enough resources to manage or look after the students under their care. Consequently, this situation limits students' exposure to valuable learning experiences and hinders their ability to develop essential competencies for their future careers. Hence, educational institutions may need to explore alternative partnerships or innovative solutions to bridge this gap and enhance internship opportunities for their students.

The result is supported by a study by Villacorta and Arnado (2022) that revealed that establishing linkages and developing community and industry partnerships proved significant challenges for teachers.

Table 3

Level of Teachers' Difficulties under TVL Track according to the Learning Materials

Items	Mean	Interpretation
<i>As a teacher, I am having difficulties in...</i>		
1. the number of printed materials and visual aids in TLE or TVL tracks, such as charts, illustrations, pictures, and related aspects.	2.98	Moderate Level
2. the amount of digital learning materials for TLE or TVL tracks such as videos, movie clips, presentations, and related aspects.	3.00	Moderate Level
3. sufficiency of educational materials and reference books in the library.	3.22	Moderate Level
4. the number of downloadable teaching and learning materials in TLE or TVL tracks in the LDRMS DepEd portal.	3.14	Moderate Level
5. the availability of learning materials during hands-on activities during laboratory sessions.	3.43	Moderate Level
6. the budget for acquiring learning materials for practical or hands-on activities.	3.57	High Level
7. the number of learning resources in the library and online educational sites for some specialized TLE or TVL tracks subjects.	3.51	High Level
8. improvising learning materials for those who were not available.	3.20	Moderate Level
Overall Mean	3.26	Moderate Level

Table 3 displays the level of difficulties teachers experience under the TVL track in learning materials. The respondents obtained an overall mean score of 3.26, interpreted as a moderate level.

Looking more closely at the table, the respondents got the lowest mean score of 2.98 on item 1, which said they had trouble with the number of printed materials and visual aids in TLE or TVL tracks, like charts, illustrations, pictures, and other similar things. This was seen as a moderate level. On the other hand, the highest mean score of 3.25 was on item 6, stating difficulty in the budget for acquiring learning materials for practical or hands-on activities interpreted as a moderate level.

The result implies that most respondents find acquiring a budget to procure learning materials for practical or hands-on activities challenging. Most teachers tend to improvise or innovate learning resources unavailable in the school to cater to practical or hands-on activities and give students relevant real-life experiences for their future work environment. This resourcefulness highlights the dedication of educators to enhance student learning despite financial constraints. Moreover, it underscores the pressing need for schools to secure additional funding or support to provide the necessary materials for practical, hands-on learning.

The result is supported by Abayan et al. (2021), which revealed that teachers experience problems with a lack of appropriate and rich instructional materials resources, thereby limiting their capacity to provide meaningful learning opportunities.

Table 4

Level of Teachers' Difficulties under TVL Track according to Qualifications and Industrial Experience

Items	Mean	Interpretation
<i>As a teacher, I am having difficulties in...</i>		
1. hands-on training utilizing selected equipment and tools in TLE or TVL tracks.	3.14	Moderate Level
2. the sufficiency of industrial work experience related to TLE or TVL tracks.	3.21	Moderate Level
3. conducting technology-assisted instruction on TLE or TVL tracks.	3.15	Moderate Level
4. attending seminars and training on innovative teaching techniques.	3.20	Moderate Level
5. the training gained on industry-relevant skills and specialization.	3.08	Moderate Level
6. handling TLE or TVL teaching loads not related to specialization.	2.97	Moderate Level
7. planning and designing lessons on TLE or TVL tracks.	2.80	Moderate Level
8. pursuing postgraduate education related to TLE or TVL tracks.	3.14	Moderate Level
Overall Mean	3.09	Moderate Level

Table 4 divulges the level of difficulties teachers experience under the TVL track regarding qualifications and industrial experience. The respondents obtained an overall mean score of 3.09, interpreted as a moderate level.

Scanning the table further, the respondents obtained the lowest mean of 2.80 on item 1, stating difficulty in the planning and designing lessons on TLE or TVL tracks, interpreted as a moderate level. On the other hand, the highest mean score of 3.21 was on item 2, stating that the sufficiency of industrial work experience related to TLE or TVL tracks was interpreted as a moderate level.

The results suggest that most respondents lack sufficient industrial work experience in TLE or TVL tracks. Most respondents gained a few years of industrial experience before entering the teaching position. This is because they prefer to apply immediately for the teaching position, as it gives them job security, a favorable working environment, and a better salary than their previous employer. However, this trend raises concerns about the potential impact on the quality of education provided to students in these tracks. Without extensive industrial experience, teachers may struggle to adequately prepare students for the realities of the workforce, ultimately affecting the effectiveness of TLE or TVL programs.

The result is supported by Hola and Lee (2020), who state that teachers with industry experience are more predisposed to teaching using hands-on teaching methods. Teachers without industry experience were typically less prepared to teach using real-world methods. Burns (2012) also supported the idea that industry experience led to emphases on different course topics and that teachers with industry experience used real-world or simulated projects far less than those without such experience. The relationship between industry experience and teaching may not be as simple as such experiences leading to hands-on, interactive teaching approaches.

Table 5

Difference in the Level of Teachers' Difficulties under TVL Track according to the Facilities and Material Resources when grouped and compared to Age, Sex, Average Family Monthly Income, Plantilla Position, and Highest Educational Attainment

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
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Age	Younger	31	25.32	289.00	0.002	0.05	Significant
	Older	34	40.00				
Sex	Male	21	26.64	328.50	0.061	0.05	Not Significant
	Female	24	36.03				
Average Family Monthly Income	Lower	19	28.34	348.50	0.201	0.05	Not Significant
	Higher	46	39.42				
Plantilla Position	Lower	19	25.34	291.50	0.036	0.05	Significant
	Higher	46	36.16				
Highest Educational Attainment	Lower	45	32.02	406.00	0.531	0.05	Not Significant
	Higher	20	35.20				

Table 5 summarizes the comparative analysis of the level of difficulties teachers experience under the TVL track in facilities and materials resources according to profile variables.

The computed p-values for sex, average family monthly income, and highest educational attainment are 0.061, 0.201, and 0.531, respectively, all greater than the 0.05 significance level and thus interpreted as insignificant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in facilities and materials resources when compared according to sex, average family monthly income, and highest educational attainment is accepted.

However, the computed p-values for variables age and plantilla position are 0.002 and 0.036, less than the 0.05 significance level and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in teachers' difficulties under the TVL track in facilities and materials resources is rejected when compared to age and plantilla position.

The finding implies that the difficulties teachers experience concerning facilities and materials resources vary when compared to age and plantilla positions. Seniors with higher positions may have observed more problems with the availability of facilities and equipment under the TLV track than other groups of teachers. This suggests that experienced educators in advanced roles will likely encounter more significant challenges regarding resource accessibility, potentially due to their longer tenure and broader responsibilities. Consequently, their insights may reflect systemic issues within the educational framework that impact teaching effectiveness.

Briggs (2019) asserts that we cannot quantify the role of equipment and facilities in the school system. The school system must integrate learning with instructional materials to meet educational objectives. Adequate and suitable learning resources are the essential ingredients for quality education and the achievement of the intended goal of the school. The process requires applying modern equipment and facilities to enhance teaching and learning.

Table 6

Difference in the Level of Teachers' Difficulties under TVL Track according to the Stakeholders' Support when grouped to Age, Sex, Average Family Monthly Income, Plantilla Position, and Highest Educational Attainment

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	31	27.97	371.00	0.040	0.05	Significant
	Older	34	37.59				
Sex	Male	21	25.79	310.50	0.033	0.05	Significant
	Female	24	36.44				
Average Family Monthly Income	Lower	19	33.18	433.50	0.960	0.05	Not Significant
	Higher	46	32.92				
Plantilla Position	Lower	19	29.55	371.50	0.344	0.05	Not Significant
	Higher	46	34.42				
Highest Educational Attainment	Lower	45	30.61	342.50	0.126	0.05	Not Significant
	Higher	20	38.38				

Table 6 reviews the comparative analysis of the level of difficulties teachers experience under the TVL track regarding stakeholders' support according to profile variables.

The computed p-values for variables average family monthly income, plantilla position, and highest educational attainment are 0.960, 0.344, and 0.126, respectively, all greater than the 0.05 significance level and thus interpreted

as insignificant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track regarding stakeholders' support is accepted when compared according to average family monthly income, plantilla position, and highest educational attainment.

However, the computed p-values for variables age and sex are 0.040 and 0.033, which is less than the 0.05 significance level and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in stakeholders' support when compared according to age and sex is rejected.

The results suggest that teachers' difficulty in gaining support from stakeholders varies depending on their age and gender. Senior female teachers may have a better perspective in seeking stakeholders' support for the TVL track than counterpart groups of teachers. Their accumulated experience and established relationships within the community could contribute to this advantage. Consequently, younger male teachers might need different strategies to engage stakeholders and effectively garner support for their initiatives.

Kilag et al. (2023) assert that industry partnerships significantly enhance TLE programs, facilitating the connection between academic learning and practical applications. These collaborations provide educational institutions with valuable insights into the skills and competencies demanded by industries, enabling them to tailor their curriculum to meet the job market's needs better. Such partnerships also provide access to resources, facilities, and expertise that may not be readily available within the confines of the academic environment.

Table 7

Difference in the Level of Teachers' Difficulties under TVL Track according to the Learning Materials when grouped and compared to Age, Sex, Average Family Monthly Income, Plantilla Position, and Highest Educational Attainment

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	31	25.84	305.00	0.004	0.05	Significant
	Older	34	39.53				
Sex	Male	21	26.88	333.50	0.071	0.05	Not Significant
	Female	24	35.92				
Average Family Monthly Income	Lower	19	31.61	410.50	0.702	0.05	Not Significant
	Higher	46	33.58				
Plantilla Position	Lower	19	28.24	346.50	0.191	0.05	Not Significant
	Higher	46	34.97				
Highest Educational Attainment	Lower	45	31.66	389.50	0.389	0.05	Not Significant
	Higher	20	36.03				

Table 7 presents the comparative analysis of the level of difficulties teachers experience under the TVL track in learning materials according to profile variables.

The computed p-values for variables sex, average family monthly income, plantilla position, and highest educational attainment are 0.071, 0.702, 0.191, and 0.389, respectively, all greater than the 0.05 significance level and thus interpreted as insignificant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in learning materials when compared according to sex, average family monthly income, plantilla position, and highest educational attainment is accepted.

However, the computed p-value for age is 0.004, less than the 0.05 significance level and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in learning materials when compared according to age is rejected.

The finding entails that teachers' difficulty learning materials varies depending on age. Because of teachers' seniority, they may have encountered many problems with the availability and suitability of learning materials under the TVL track compared to other groups of teachers. This suggests that older teachers may have developed a deeper understanding of the challenges associated with these materials, influencing their perceptions and experiences. Consequently, their seniority may lead to greater awareness of the inadequacies in the learning resources available for the TVL track. Learning materials aid teachers in delivering lessons efficiently and quickly. That is why assessing these resources before presenting them to the class is much more important. There are specific characteristics that instructional materials should have that are aligned and consonant with learning objectives and goals. Prioritizing the quality of instructional materials is a must since they significantly impact the teaching and learning process (Mendiola & Estonanto, 2022).

Table 8

Difference in the Level of Teachers' Difficulties under TVL Track according to the Qualifications and Industrial Experience when grouped and compared to Age, Sex, Average Family Monthly Income, Plantilla Position, and Highest Educational Attainment

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	31	26.48	325.00	0.008	0.05	Significant
	Older	34	38.94				
Sex	Male	21	26.02	315.50	0.040	0.05	Significant
	Female	24	36.33				
Average Family Monthly Income	Lower	19	29.79	376.00	0.378	0.05	Not Significant
	Higher	46	34.33				
Plantilla Position	Lower	19	28.34	348.50	0.201	0.05	Not Significant
	Higher	46	34.92				
Highest Educational Attainment	Lower	45	32.03	406.50	0.536	0.05	Not Significant
	Higher	20	35.18				

Table 8 shows the comparative analysis of the level of difficulties teachers experience under the TVL track in qualifications and industrial experience according to profile variables.

The computed p-values for variables average family monthly income, plantilla position, and highest educational attainment are 0.378, 0.201, and 0.536, respectively, all greater than the 0.05 significance level and thus interpreted as insignificant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in qualifications and industrial experience is accepted when compared according to average family monthly income, plantilla position, and highest educational attainment.

However, the computed p-values for variables age and sex are 0.008 and 0.040, less than the 0.05 significance level and thus interpreted as significant. Therefore, the hypothesis that there is no significant difference in the level of teachers' difficulties under the TVL track in qualifications and industrial experience when compared according to age and sex is rejected.

The results imply that the level of difficulty teachers face regarding qualifications and industry experience varies depending on their age and sex. Senior female teachers may have gained richer industrial experience than other teachers. This experience can significantly influence their teaching methods and classroom management skills. Consequently, younger or less experienced teachers might benefit from mentorship opportunities provided by their senior counterparts to enhance their professional development.

According to Hola and Lee (2020), teachers with industry experience will be more predisposed to hands-on teaching methods. Teachers without industry experience were typically less prepared to teach using real-world methods. Burns (2012) supported the idea that industry experience led to emphases on different course topics and that teachers with industry experience used real-world or simulated projects far less than those without such experience. The relationship between industry experience and teaching may not be as simple, as such experiences lead to hands-on, interactive teaching approaches.

Conclusions:

The study concluded that most participants were senior female teachers with higher incomes and positions but lower educational backgrounds. Teachers faced significant difficulties due to inadequate facilities, material resources, and stakeholder support, which limited students' exposure to real-world work experiences. Financial constraints hindered teachers from procuring essential learning materials, while insufficient industry experience affected their ability to prepare students for actual work environments. Variations in teachers' difficulties were observed across different areas, with stakeholder support and industry experience challenges influenced by gender, and plantilla positions affecting issues with facilities and resources. To address these challenges, the study recommends increasing TVL funding for facilities and materials, upgrading ICT laboratories with free internet access, and implementing mandatory training sessions on updated TVL methodologies. Equitable distribution of learning resources should be ensured, and annual assessments should identify and address teachers' resource and training needs. Strengthening partnerships with local businesses can provide additional resources and internship opportunities for students. Schools should also support teachers' professional development through training programs and workshops while strategically managing budgets to prioritize TVL resources. Lastly, adopting diverse teaching strategies can enhance student engagement and accommodate different learning styles.

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