

Dimension of Work Immersion on TVL Graduates' Attributes and Cognitive Skills

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Abstract—This study aimed to investigate the dimension of work immersion on TVL graduates' attributes and cognitive skills. It specifically sought to assess the level of work immersion in terms of duration, type of workplace, student interest, quality of supervision, and industry engagement. It also determined the level of TVL graduates' attributes and cognitive skills. Additionally, the significant relationship between the dimensions of work immersion and students' cognitive and technical skills was tested. The study utilized a descriptive-correlational research design to determine the relationship between work immersion dimensions and TVL graduates' attributes and cognitive skills. The respondents of this study were fifty-seven (57) Senior High School students enrolled in the Technical-Vocational-Livelihood (TVL) track. Survey questionnaires were used as the primary instrument for data collection, supported by assessment tools to measure attributes and cognitive skills. The findings revealed that the level of work immersion dimensions in terms of duration, type of workplace, student interest, quality of supervision, and industry engagement was high. Moreover, the level of TVL graduates' attributes and cognitive skills was also high. Furthermore, a significant relationship was found between work immersion dimensions and TVL graduates' attributes and cognitive skills, indicating that effective immersion experiences contribute positively to students' skill development. The work immersion plays a significant role in enhancing TVL graduates' immersion have a statistically significant relationship with both the attributes and cognitive skills of TVL graduates. Consequently, the null hypotheses were rejected. This indicates that increased exposure to well-structured and meaningful work immersion experiences significantly enhances graduates' attributes such as adaptability, responsibility, communication, and teamwork, as well as cognitive skills, including critical thinking, problem-solving, and decision-making. It is recommended that schools, educators, and industry partners strengthen the implementation and monitoring of work immersion programs to maximize their positive impact on students' overall development.

Keywords— *Work Immersion, Attributes, Cognitive Skills, TVL Graduates, Industry Engagement.*

I. INTRODUCTION

Work immersion is a crucial component of the Senior High School (SHS) curriculum in the Philippines, particularly for the Technical-Vocational-Livelihood (TVL) track. Its goal is to provide students with practical work experiences where they can put the theoretical concepts they have learned in the classroom into practice. Work Immersion refers to the subject of the Senior High School Curriculum, which involves hands-on experience or work simulation in which learners can apply their competencies and acquired knowledge relevant to their track (Llego, 2025).

Based on the (OECD, 2019) In the framework, students' attributes are defined as a mix of knowledge, skills, attitudes, and values necessary to navigate an unpredictable future. One of the crucial factors influencing the success of work immersion is students' attributes. Students who possess positive attributes tend to engage more actively in workplace tasks, demonstrate initiative, and respond effectively to challenges, thereby maximizing the learning opportunities provided by work immersion. Conversely, learners with less developed attributes may struggle to fully benefit from immersion experiences despite being exposed to the same training conditions.

Cognitive skills, as described by (Coursera Staff, 2025), play a vital role in an individual's ability to think critically, process information, and make sound decisions in various professional settings. These skills are continuously engaged in real-world tasks that demand sustained attention, problem-solving, and memory retention. In the context of Work Immersion, students are placed in authentic workplace environments where they are required to apply these cognitive abilities in practical situations. Tasks such as following instructions, analyzing work procedures, solving unexpected problems, and making decisions under supervision directly engage students' cognitive talents. Through repeated exposure to workplace challenges, work immersion serves as a training ground that strengthens students' attention, analytical thinking, and decision-making skills. As a result, learners become better prepared for future careers, as work immersion allows them to practice and enhance the cognitive skills that are essential for success in both employment and lifelong learning.

The study aims to determine how work immersion experiences influence the development of students' cognitive and technical skills. Specifically, it seeks to examine how exposure to actual workplace environments enhances their knowledge, problem-solving abilities, and critical thinking (cognitive skills), as well as their practical competencies, technical know-how, and application of learned theories (technical skills). Findings at Pangil District may be used in other schools, which would make a significant impact on education nationwide.

1.1 Statement of the Problem

Problem/s which were addressed by the research

The goal of this study was to determine the relationship between the dimensions of work immersion and TVL

graduates' attributes and cognitive skills in Galalan Integrated National High School.

This research sought answer to the following questions:

1. What is the extent of the work immersion dimension in terms of:
 - 1.1 Duration of work immersion;
 - 1.2 Type of workplace;
 - 1.3 Quality of supervision;
 - 1.4 Industry engagement; and
 - 1.5 Student interest?
2. What is the level of TVL graduates' attributes in terms of:
 - 2.1 Learning Agility;
 - 2.2 Teamwork; and
 - 2.3. Application of Knowledge?
3. What is the level of TVL graduates' cognitive skills in terms of:
 - 3.1 Critical Thinking;
 - 3.2 Problem-Solving Skills; and
 - 3.3 Decision-Making Skills?
4. Is there a significant relationship between the dimension of work immersion and TVL graduates' attributes?
5. Is there a significant relationship between the dimension of work immersion and TVL graduates' cognitive skills?

II. METHODOLOGY

The study utilized a descriptive-correlational research design to determine the relationship between work immersion dimensions and TVL graduates' attributes and cognitive skills. The respondents of this study were fifty-seven (57) Senior High School students enrolled in the Technical-Vocational-Livelihood (TVL) track. Survey questionnaires were used as the primary instrument for data collection, supported by assessment tools to measure attributes and cognitive skills.

III. RESULTS AND DISCUSSION

This part discusses the results that were yielded from the treatment of the data that was gathered in this study. The following tabular presentations and discussions to determine the relationship between the dimensions of work immersion and the attributes and cognitive skills of graduated SHS learners.

Extent of Work Immersion Dimension

In this study, the extent of work immersion dimensions was described in terms of duration of work immersion, type of workplace, quality of supervision, industry engagement, and students' interest and was determined by mean and standard deviation.

The following tables discussed the extent of students' exposure to real-work environment.

Table 1 presents the extent of work immersion dimension in terms of duration of work immersion.

Students strongly agree that the duration of work immersion allows them to complete tasks effectively and gain experience that contributes to overall learning and skill development. The span of time is sufficient for them to

acquire the knowledge and practice necessary skills and have enough time to master the daily routines of the workplace. Also, it provides adequate time for transition from observation to independent task performance.

The extent of work immersion dimension in terms of duration of work immersion gained the overall weighted mean of 4.42 with a standard deviation of 0.79, verbally interpreted as Very High. This indicates that the respondents strongly perceive that the time allotted for their practical training is sufficient to acquire the knowledge and skills needed.

Table 1. Extent of Work Immersion Dimension in terms of Duration of Work Immersion

Statements	Mean	SD	Remarks
The Duration of Work Immersion ...			
... is sufficient to acquire the knowledge and practice necessary skills.	4.46	0.73	Strongly Agree
...allows to complete tasks effectively and gain experience.	4.53	0.70	Strongly Agree
...contributes to overall learning and skill development.	4.51	0.78	Strongly Agree
...provides enough time to master the daily routines of the workplace.	4.37	0.81	Strongly Agree
...provides adequate time to transition from observation to independent task performance.	4.25	0.90	Strongly Agree
Weighted Mean	4.42		
SD	0.79		
Verbal Interpretation	Very High		

In summary, the findings indicate that students were given enough time to have their hands-on experiences, wherein they effectively gain knowledge and experiences that enhance their learning and skills in performing assigned tasks.

Table 2 presents the extent of work immersion dimension in terms of the type of workplace.

Table 2. Extent of Work Immersion Dimension in terms of Type of Workplace

Statements	Mean	SD	Remarks
The Type of Workplace in Work Immersion...			
...is directly relevant to my chosen specialization or track.	4.23	0.90	Strongly Agree
...provides meaningful learning opportunities.	4.40	0.91	Strongly Agree
...offers tasks and experiences that prepare me for future careers.	4.32	0.98	Strongly Agree
...has facilities and equipment that are appropriate for my training.	4.28	0.89	Strongly Agree
...maintains a professional atmosphere reflecting industry standards.	4.19	1.03	Agree
Weighted Mean	4.28		
SD	0.95		
Verbal Interpretation	Very High		

Students strongly agree that the type of workplace is relevant and beneficial for their training. Specifically, the respondents perceive that the workplace is directly aligned with their chosen specialization or track, provides meaningful learning opportunities, offers tasks and experiences that prepare them for future careers, has facilities and equipment appropriate for their training, and maintains a professional atmosphere that reflects industry standards.

The extent of work immersion dimension in terms of the type of workplace obtained an overall weighted mean of 4.28

with a standard deviation of 0.95, verbally interpreted as Very High. This indicates that the respondents strongly perceive that the type of workplace is highly suitable for their practical training and supports their acquisition of knowledge and skills relevant to their field.

In summary, the findings suggest that students are exposed to workplaces that provide relevant, practical, and professionally appropriate experiences, which enhance their learning and prepare them for future careers.

Table 3. Extent of Work Immersion Dimension in terms of Quality of Supervision

Statements The Quality of Supervision in Work Immersion...	Mean	SD	Remarks
...provides clear instructions and guidance on tasks.	4.40	0.90	Strongly Agree
...provides constructive feedback that helped me improve my performance.	4.39	0.89	Strongly Agree
...encourages the development of my cognitive and technical skills.	4.46	0.73	Strongly Agree
...is readily available to answer my questions when needed.	4.40	0.86	Strongly Agree
...sets clear expectations for my performance and behavior.	4.32	0.82	Strongly Agree
Weighted Mean	4.36		
SD	0.79		
Verbal Interpretation	Very High		

Table 3 presents the extent of work immersion dimension in terms of quality of supervision.

Students strongly agree that the quality of supervision during work immersion supports their learning and skill development. The supervisors provide clear instructions and guidance on tasks, give constructive feedback that helps improve performance, and encourage the development of students' cognitive and technical skills. Moreover, supervisors are readily available to answer questions when needed and set clear expectations for students' performance and behavior.

The extent of work immersion dimension in terms of the quality of supervision obtained an overall weighted mean of 4.36 with a standard deviation of 0.79, verbally interpreted as Very High. This indicates that the respondents strongly perceive that the supervision they receive during work immersion is highly effective in facilitating their learning and skill acquisition.

In summary, the findings reveal that students are provided with high-quality supervision, which plays a significant role in enhancing their performance, strengthening their competencies, and supporting their overall learning experience in the workplace.

Table 4 presents the extent of the work immersion dimension in terms of industry engagement.

Students generally agree that industry engagement in work immersion provides valuable exposure to real workplace settings. The respondents perceive that the program involves real work-related projects and gives them opportunities to interact with and learn from industry professionals. Furthermore, students strongly agree that it allows them to experience current industry practices and standards, enables them to function as active members of a team, and provides

exposure to different departments or functions within the organization. These experiences help students gain confidence in performing workplace tasks and improve their ability to communicate and collaborate with others in a professional environment. Moreover, active industry engagement strengthens students' preparedness for future careers by allowing them to apply classroom knowledge to actual workplace situations.

Table 4. Extent of Work Immersion Dimension in terms of Industry engagement

Statements The Industry Engagement of Work Immersion...	Mean	SD	Remarks
...involves real work-related projects.	4.19	1.05	Agree
...gives opportunities to interact with and learn from industry professionals.	4.19	0.96	Agree
...allows to experience current industry practices and standards.	4.24	0.94	Strongly Agree
...makes a functional member of the team during the engagement.	4.23	0.86	Strongly Agree
...provides exposure to different departments or functions.	4.33	0.82	Strongly Agree
Weighted Mean	4.28		
SD	0.84		
Verbal Interpretation	Very High		

The extent of work immersion dimension in terms of industry engagement obtained an overall weighted mean of 4.28 with a standard deviation of 0.84, verbally interpreted as Very High. This indicates that the respondents perceive that industry engagement in their work immersion is highly effective in providing relevant and meaningful real-world experiences that contribute to their learning and skill development.

In summary, the findings reveal that students are given substantial opportunities to engage with actual industry practices and professionals, which enhances their practical knowledge, teamwork skills, and overall preparedness for future careers.

Table 5 presents the extent of work immersion dimension in terms of student interest.

Statements The Students' Interest in Work Immersion...	Mean	SD	Remarks
...motivates them to perform the assigned tasks.	4.35	1.00	Strongly Agree
...encourages active participation in immersion activities due to personal interest in the field.	4.33	0.92	Strongly Agree
...helps them develop skills more effectively.	4.46	0.90	Strongly Agree
...makes them feel more committed to their chosen career path because of the immersion.	4.32	0.94	Strongly Agree
...allows them to find the tasks engaging and relevant to their personal goals.	4.30	0.94	Strongly Agree
Weighted Mean	4.35		
SD	0.94		
Verbal Interpretation	Very High		

Students strongly agree that their interest in work immersion positively influences their engagement and learning. The respondents perceive that their interest motivates them to perform assigned tasks, encourages active

participation in immersion activities, and helps them develop their skills more effectively. Moreover, students feel more committed to their chosen career path and find the tasks engaging and relevant to their personal goals because of their involvement in the program.

The extent of work immersion dimension in terms of student interest obtained an overall weighted mean of 4.35 with a standard deviation of 0.94, verbally interpreted as Very High. This indicates that the respondents strongly perceive that their personal interest plays a significant role in enhancing their participation, motivation, and skill development during work immersion.

In summary, the findings reveal that students' strong interest in work immersion contributes to their active involvement and commitment, enabling them to gain meaningful experiences and improve their knowledge and skills in relation to their chosen field.

Level of TVL Graduates' Attributes

In this study, the level of TVL graduates' attributes was described in terms of learning agility, teamwork, and application of knowledge, and was determined using mean and standard deviation.

The following tables discuss the level of attributes manifested by the TVL graduates in relation to their preparedness for employment and real-world work environments.

Table 6 presents the level of students' attributes in terms of learning agility.

Table 6. Level of TVL Graduates' Attributes in terms of Learning Agility

Statements	Mean	SD	Remarks
The Learning Agility of the students through Work Immersion...			
...quickly learns new skills.	4.32	0.90	Strongly Agree
...adapts to new tasks or challenges.	4.27	0.92	Strongly Agree
...improves ability to learn from experience.	4.27	0.94	Strongly Agree
...applies feedback immediately to improve how I perform a task.	4.41	0.93	Strongly Agree
...makes proactive in seeking new information to better understand my role.	4.35	0.90	Strongly Agree
Weighted Mean	4.46		
SD	0.91		
Verbal Interpretation	Very High		

Students strongly agree that work immersion enhances their ability to learn and adapt in various situations. The respondents perceive that they are able to quickly learn new skills, adapt to new tasks or challenges, and improve their ability to learn from experience. Furthermore, they strongly agree that they can apply feedback immediately to improve task performance and become proactive in seeking new information to better understand their roles in the workplace.

The level of students' attributes in terms of learning agility obtained an overall weighted mean of 4.46 with a standard deviation of 0.91, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion significantly develops their learning agility,

enabling them to become more adaptable, responsive, and effective in acquiring new knowledge and skills.

In summary, the findings reveal that students demonstrate a high level of learning agility during work immersion, which allows them to continuously improve their performance, adapt to changing work demands, and enhance their overall competence in their chosen field.

Table 7. Level of TVL Graduates' Attributes in terms of Teamwork

Statements	Mean	SD	Remarks
The Teamwork of the students through Work Immersion...			
...works effectively with colleagues and supervisors.	4.40	0.77	Strongly Agree
...contributes actively to group activities and tasks.	4.40	0.97	Strongly Agree
...helps cooperate with others to achieve workplace goals.	4.49	0.92	Strongly Agree
...makes communication clearly and respectfully with my team members.	4.53	0.88	Strongly Agree
...supports colleagues to ensure work is completed on time.	4.49	0.73	Strongly Agree
Weighted Mean	4.46		
SD	0.86		
Verbal Interpretation	Very High		

Table 7 presents the level of students' attributes in terms of teamwork.

Students strongly agree that work immersion enhances their ability to collaborate effectively in a workplace setting. The respondents perceive that they are able to work efficiently with colleagues and supervisors, contribute actively to group activities and tasks, and cooperate with others to achieve workplace goals. Moreover, they strongly agree that they communicate clearly and respectfully with team members and support their colleagues to ensure that tasks are completed on time. These findings suggest that work immersion provides students with meaningful opportunities to develop teamwork, interpersonal communication, and cooperative skills essential in professional environments.

The level of students' attributes in terms of teamwork obtained an overall weighted mean of 4.46 with a standard deviation of 0.86, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion significantly develops their teamwork skills, enabling them to interact effectively and work collaboratively in achieving common objectives.

In summary, the findings reveal that students demonstrate a high level of teamwork during work immersion, which contributes to improved collaboration, communication, and overall performance in accomplishing assigned tasks within the workplace.

Table 8 presents the level of students' attributes in terms of the application of knowledge.

Students strongly agree that work immersion enables them to apply what they have learned in school to actual workplace tasks. The respondents perceive that they are able to transfer learned skills to different situations or problems, practice and improve their knowledge in real work contexts, explain the connection between classroom lessons and the tasks they performed, and use technical concepts taught in school to

solve practical workplace issues. This indicates that work immersion serves as an effective bridge between theoretical learning and hands-on application. It also enhances students' confidence in performing tasks independently within a real work environment. Moreover, it helps them develop a deeper understanding of how classroom-based competencies are utilized in actual industry settings.

Table 8. Level of TVL Graduates' Attributes in terms of Application of Knowledge

Statements The Application of Knowledge through Work Immersion...	Mean	SD	Remarks
...is learned in school to actual workplace tasks.	4.51	0.78	Strongly Agree
...transfers learned skills to different situations or problems.	4.39	0.79	Strongly Agree
...allows to practice and improve my knowledge in real work contexts.	4.37	0.91	Strongly Agree
...explains the connection between my classroom lessons and the tasks I performed.	4.25	0.92	Strongly Agree
...uses the technical concepts taught in school to solve practical workplace issues.	4.40	0.77	Strongly Agree
Weighted Mean	4.38		
SD	0.84		
Verbal Interpretation	Very High		

The level of students' attributes in terms of application of knowledge obtained an overall weighted mean of 4.38 with a standard deviation of 0.84, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion effectively facilitates the practical application of their knowledge and skills in real work environments.

In summary, the findings reveal that students are able to connect classroom learning with workplace tasks, enhancing their ability to apply theoretical knowledge to practical situations and further develop their competence in their chosen field. This demonstrates that work immersion plays a vital role in strengthening students' readiness for employment and real-world challenges. It also highlights the importance of experiential learning in reinforcing academic concepts through actual practice. Ultimately, such experiences contribute to the holistic development of TVL graduates by improving both their technical and cognitive skills.

Level of TVL Graduates' Cognitive Skills

In this study, the level of TVL graduates' cognitive skills was described in terms of critical thinking skills, problem-solving skills, and decision-making skills and was determined using mean and standard deviation.

The following tables discussed the level of cognitive skills demonstrated by the TVL graduates in relation to their academic performance and workplace preparedness.

Table 9 presents the level of students' cognitive skills in terms of critical thinking.

Students strongly agree that work immersion enhances their critical thinking abilities in various work-related situations. The respondents perceive that it helps them analyze problems effectively, evaluate situations before making decisions, and think critically in solving workplace problems. Moreover, students strongly agree that they can use technical concepts learned in school to address practical workplace

issues and examine the underlying causes of problems rather than focusing only on the symptoms. This indicates that work immersion fosters deeper cognitive engagement by encouraging students to think beyond routine tasks. It also suggests that exposure to real workplace scenarios strengthens their ability to make more informed and logical decisions. These results imply that sustained engagement in work immersion activities plays a vital role in developing higher-order thinking skills essential for future professional success.

Table 9. Level of TVL Graduates' Cognitive Skills in terms of Critical Thinking

Statements The cognitive skills of the students in Critical Thinking...	Mean	SD	Remarks
...helps analyze problems effectively.	4.32	0.90	Strongly Agree
...helps to evaluate situations before making decisions.	4.42	0.84	Strongly Agree
...encourages to think critically in problem-solving.	4.47	0.70	Strongly Agree
...uses the technical concepts taught in school to solve practical workplace issues.	4.44	0.70	Strongly Agree
...examines the underlying causes of a problem rather than just the symptoms.	4.26	0.81	Strongly Agree
Weighted Mean	4.38		
SD	0.80		
Verbal Interpretation	Very High		

The level of students' cognitive skills in terms of critical thinking obtained an overall weighted mean of 4.38 with a standard deviation of 0.80, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion significantly develops their critical thinking skills, enabling them to approach tasks and problems analytically and effectively. Furthermore, students believe that their immersion experiences help them evaluate situations carefully, make sound decisions, and apply logical reasoning in completing workplace tasks.

In summary, the findings reveal that students demonstrate a high level of critical thinking during work immersion, which enhances their problem-solving capabilities and allows them to apply school-taught concepts to practical, real-world situations.

Table 10 presents the level of students' cognitive skills in terms of problem-solving skills.

Students strongly agree that work immersion enhances their ability to address and resolve workplace challenges effectively. The respondents perceive that they can identify problems in tasks and find practical solutions, explore alternative approaches when facing challenges, and apply problem-solving strategies learned during immersion to actual tasks. Furthermore, they strongly agree that they remain calm and logical when confronted with unexpected workplace difficulties and use available resources and tools effectively to resolve technical issues. This suggests that immersion experiences help students build resilience and confidence when dealing with real-world work demands. It also reflects the development of their analytical and adaptive thinking skills in dynamic environments. Overall, these findings indicate that work immersion plays a significant role in

strengthening students' problem-solving competence in professional settings. It highlights the importance of exposing learners to authentic workplace situations that require immediate and practical decision-making. Ultimately, such experiences contribute to bridging the gap between classroom learning and industry expectations.

Table 10. Level of TVL Graduates' Cognitive Skills in terms of Problem-Solving Skills

Statements	Mean	SD	Remarks
The cognitive skills of the students in Problem Solving...			
...identifies problems in tasks and find practical solutions.	4.32	0.78	Strongly Agree
...allows to explore alternative approaches when facing challenges.	4.32	0.82	Strongly Agree
...applies problem-solving strategies learned during immersion in actual tasks.	4.35	0.74	Strongly Agree
...remains calm and logical when faced with unexpected workplace difficulties.	4.32	0.78	Strongly Agree
...uses available resources and tools effectively to resolve technical errors.	4.43	0.82	Strongly Agree
Weighted Mean	4.34		
SD	0.79		
Verbal Interpretation	Very High		

The level of students' cognitive skills in terms of problem-solving skills obtained an overall weighted mean of 4.34 with a standard deviation of 0.79, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion significantly develops their problem-solving abilities, enabling them to respond effectively to real work situations.

In summary, the findings reveal that students demonstrate a high level of problem-solving skills during work immersion, which enhances their capacity to analyze tasks, make informed decisions, and implement practical solutions in the workplace.

Table 11. Level of TVL Graduates' Cognitive Skills in terms of Decision-Making Skills

Statements	Mean	SD	Remarks
The cognitive skills of the students in Decision-Making...			
...makes informed decisions when performing workplace tasks.	4.37	0.93	Strongly Agree
...learns to evaluate options before taking action.	4.32	0.88	Strongly Agree
...improves confidence in making work-related decisions.	4.37	0.83	Strongly Agree
...takes responsibility for the outcomes of the decisions made during immersion.	4.40	0.91	Strongly Agree
...considers the impact of decisions on the safety and productivity of the team.	4.42	0.88	Strongly Agree
Weighted Mean	4.37		
SD	0.89		
Verbal Interpretation	Very High		

Table 11 presents the level of students' cognitive skills in terms of decision-making skills.

Students strongly agree that work immersion enhances their ability to make informed and responsible decisions in workplace settings. The respondents perceive that they are able to make informed decisions when performing tasks, evaluate options before taking action, and improve their confidence in making work-related decisions. Moreover, they

strongly agree that they take responsibility for the outcomes of their decisions and consider the impact of their choices on the safety and productivity of the team.

The level of students' cognitive skills in terms of decision-making skills obtained an overall weighted mean of 4.37 with a standard deviation of 0.89, verbally interpreted as Very High. This indicates that the respondents strongly perceive that work immersion effectively develops their decision-making abilities, enabling them to make thoughtful, responsible, and practical choices in real work situations.

In summary, the findings reveal that students demonstrate a high level of decision-making skills during work immersion, which contributes to improved confidence, responsibility, and awareness of the consequences of their actions in the workplace.

Significant Relationship between the Dimension of Work Immersion and TVL Graduates' Attributes

In this study, the significant relationship between the dimension of work immersion and TVL Graduates' attributes was analyzed using the Pearson Correlation Coefficient in Minitab 14.

Table 12 presents the significant relationship between the work immersion dimensions and TVL graduates' attributes, specifically learning agility, teamwork, and application of knowledge.

The results show that all dimensions of work immersion duration of work immersion, type of workplace, quality of supervision, industry engagement, and student interest have a significant positive relationship with the students' attributes, as indicated by the Pearson correlation coefficients and the significance values ($p < 0.05$). This indicates that improvements in the quality and implementation of work immersion experiences contribute to the enhancement of students' work values, adaptability, communication skills, and professionalism.

Table 12. Significant Relationship between Work Immersion Dimension and TVL Graduates' Attributes

		TVL Graduates' Attributes		
		Learning Agility	Teamwork	Application of Knowledge
Inclusive Education	Duration of work immersion	Pearson Correlation	0.842*	0.767*
		Sig. (2-tailed)	.000	.000
		N	57	57
Type of workplace	Quality of supervision	Pearson Correlation	0.833*	0.824*
		Sig. (2-tailed)	.000	.000
		N	57	57
Industry engagement	Student interest	Pearson Correlation	0.840*	0.760*
		Sig. (2-tailed)	.000	.000
		N	57	57
Student interest	Duration of work immersion	Pearson Correlation	0.630*	0.686*
		Sig. (2-tailed)	.000	.000
		N	57	57
Quality of supervision	Type of workplace	Pearson Correlation	0.924*	0.902*
		Sig. (2-tailed)	.000	.000
		N	57	57

Note * $p < .05$

Specifically, the duration of work immersion is strongly correlated with learning agility ($r = 0.767$), teamwork ($r = 0.809$), and application of knowledge ($r = 0.842$). The type of workplace also shows a strong positive relationship with learning agility ($r = 0.824$), teamwork ($r = 0.862$), and application of knowledge ($r = 0.833$). Similarly, quality of supervision is positively associated with learning agility ($r = 0.760$), teamwork ($r = 0.789$), and application of knowledge ($r = 0.840$). Industry engagement demonstrates a moderate to strong positive correlation with learning agility ($r = 0.686$), teamwork ($r = 0.643$), and application of knowledge ($r = 0.630$). Finally, student interest exhibits the strongest positive relationship with learning agility ($r = 0.902$), teamwork ($r = 0.823$), and application of knowledge ($r = 0.924$).

These results indicate that higher levels of engagement in each work immersion dimension are associated with higher levels of TVL graduates' attributes. In other words, when students perceive the duration, type of workplace, quality of supervision, industry engagement, and their own interest as favorable, they tend to demonstrate enhanced learning agility, teamwork, and application of knowledge.

This underscores the importance of well-structured work immersion programs in developing essential TVL graduates' attributes that support learning and performance in real workplace settings. It also highlights the need for continuous collaboration between schools and industry partners to ensure meaningful and relevant training experiences for students.

Table 13 presents the significant relationship between the work immersion dimensions and TVL graduates' cognitive skills, specifically critical thinking, problem-solving skills, and decision-making skills.

The results indicate that all dimensions of work immersion, duration of work immersion, type of workplace, quality of supervision, industry engagement, and student interest have a significant positive relationship with the TVL graduates' cognitive skills, as evidenced by the Pearson correlation coefficients and their corresponding significance values ($p < 0.05$).

Table 13. Significant Relationship between the Work Immersion Dimension and TVL Graduates' Cognitive Skills

Work Immersion Dimension		TVL Graduates' Cognitive Skills		
		Critical Thinking	Problem-Solving Skills	Decision-Making Skills
Duration of work immersion	of Pearson Correlation	0.759*	0.766*	0.848*
	Sig. (2-tailed)	.000	.000	.000
	N	57	57	57
Type of workplace	of Pearson Correlation	0.778*	0.744*	0.833*
	Sig. (2-tailed)	.000	.000	.000
	N	57	57	57
Quality of supervision	of Pearson Correlation	0.751*	0.702*	0.769*
	Sig. (2-tailed)	.000	.000	.000
	N	57	57	57
Industry engagement	Pearson Correlation	0.674*	0.737*	0.616*
	Sig. (2-tailed)	.000	.000	.000
	N	57	57	57
Student interest	Pearson Correlation	0.890*	0.810*	0.880*
	Sig. (2-tailed)	.000	.000	.000
	N	57	57	57

Note * $p < .05$

Specifically, the duration of work immersion is strongly correlated with critical thinking ($r = 0.759$), problem-solving skills ($r = 0.766$), and decision-making skills ($r = 0.848$). The type of workplace also shows a strong positive correlation with critical thinking ($r = 0.778$), problem-solving skills ($r = 0.744$), and decision-making skills ($r = 0.833$). Similarly, the quality of supervision is positively associated with critical thinking ($r = 0.751$), problem-solving skills ($r = 0.702$), and decision-making skills ($r = 0.769$). Industry engagement demonstrates a moderate to strong positive correlation with critical thinking ($r = 0.674$), problem-solving skills ($r = 0.737$), and decision-making skills ($r = 0.616$). Finally, student interest exhibits the strongest positive relationship with critical thinking ($r = 0.890$), problem-solving skills ($r = 0.810$), and decision-making skills ($r = 0.880$).

These results indicate that higher levels of engagement in each dimension of work immersion are associated with higher levels of TVL graduates' cognitive skills. In other words, when students perceive the duration, type of workplace, quality of supervision, industry engagement, and their own interests as favorable, they tend to demonstrate better critical thinking, problem-solving, and decision-making abilities. This suggests that well-structured work immersion programs can significantly enhance students' cognitive development in real-world contexts

Discussing cognitive ability was classified into memory ability, representational ability, information processing ability, logical reasoning ability, and thinking conversion ability, and the effects of these five ability values on academic achievement. Structural equation modeling (SEM) was used to analyze the moderating effect of Self-monitoring between cognitive ability and Academic Achievement, using students' Self-monitoring as a moderating variable.

IV. CONCLUSION AND RECOMMENDATIONS

The extent to which the dimensions of work immersion are implemented significantly influences TVL graduates' attributes, resulting in the rejection of the null hypothesis. This means that factors such as duration of immersion, type of workplace, quality of supervision, industry engagement, and students' interest are significantly related to the development of learners' attributes such as learning agility, teamwork, and application of knowledge. This highlights the important role of well-structured and effectively implemented work immersion programs in strengthening students' attributes and preparing them for workplace demands and professional growth. It underscores the need for continuous improvement and alignment of immersion activities with industry standards to maximize students' competency development.

The findings show that the dimensions of work immersion have a significant effect on TVL graduates' cognitive skills, leading to the rejection of the null hypothesis. This means that factors such as duration of immersion, type of workplace, quality of supervision, industry engagement, and TVL graduates' interest are significantly related to the development of cognitive skills such as critical thinking, problem-solving, and decision-making. This highlights the crucial role of well-structured and effectively implemented work immersion

programs in enhancing learners' cognitive abilities and preparing them to think critically, solve problems effectively, and make sound decisions in both academic and real-world contexts.

Overall, the findings confirm that work immersion is a crucial component in the Technical-Vocational-Livelihood (TVL) track, as it significantly contributes to both the development of graduates' attributes and the enhancement of their cognitive skills. This implies that strengthening and continuously improving the implementation of work immersion programs can lead to better-prepared graduates who are equipped with both the competencies and mindset needed to succeed in their chosen careers.

In light of the conclusions about the significant effects of work immersion on students' attributes and cognitive skills, the following recommendations are proposed:

School administrators may strengthen and expand partnerships with industries that are directly aligned with students' specific tracks (e.g., TVL) to ensure that the type of workplace remains highly relevant and meaningful.

Senior High School teachers and work immersion coordinators may develop strategies to better assess and match student interests with their immersion placements. Pre-immersion orientations should focus on aligning student goals with assigned workplace tasks, as student interest is a primary driver of success.

Industry partners may maintain the high quality of supervision by providing clear instructions and constructive feedback. Training supervisors on effective mentoring can

further enhance students' confidence, decision-making, and problem-solving skills.

Students may take proactive initiatives during immersion by seeking feedback, exploring different departments, and actively applying classroom knowledge to solve practical workplace issues, thereby strengthening both technical and cognitive skills.

Future researchers may conduct further studies on the long-term employability of graduates who participated in work immersion, including investigating additional variables such as work ethic, communication skills, or adaptability in diverse workplace settings to provide deeper insights into the program's impact.

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