

Employability Skills, Technical Competence, Learning Engagement and Work Immersion Performance of Students

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ABSTRACT

This study entitled “Employability Skills, Technical Competence, Learning Engagement, and Work Immersion Performance of Students”, examined the relationship among employability skills, technical competence, learning engagement, and work immersion performance of Grade 12 Technical-Vocational-Livelihood (TVL) students in a Senior High School in Negros Inland Region for school year 2026-2027. Using a descriptive-correlational research design, data were collected through a validated questionnaire and work immersion performance records. The findings revealed that respondents displayed strong employability skills; showed very high technical competence in accuracy, safety, and adherence to procedures; displayed a very high level of learning engagement, showing strong behavioral discipline, emotional motivation, and cognitive reflection, though sustaining focus throughout tasks remains an area for improvement to further maximize workplace learning outcomes; achieved an outstanding level of work immersion performance, demonstrating uniform excellence, strong mastery of required competencies, and consistent readiness for workplace tasks with minimal variation across the group; students’ employability skills did not statistically influence or predict their performance in the SHS work immersion program. Their ability to perform tasks accurately and skillfully did not automatically translate into better outcomes during their work immersion, and although students showed high levels of behavioral, emotional, and cognitive engagement in their learning, their actual performance in work immersion was influenced more by external factors than by their own engagement levels.

Keywords: Employability, Teachincal, Engagement, Performance and Engagement.

INTRODUCTION

The development of employability skills, technical competence, learning engagement, and work immersion performance has become a priority in technical-vocational and senior high school programs. Core employability skills such as communication, teamwork, and problem-solving complement technical training, while learning engagement fosters motivation and active participation (Roble, 2021).

Employability, in the global perspective, has become a critical issue due to rapid technological advancements, automation, and shifting labor market demands. UNESCO (2021) emphasized that Technical and Vocational Education and Training (TVET) play a vital role in addressing youth unemployment by equipping learners with job-relevant skills and adaptability. Studies highlight that beyond technical skills, soft skills such as communication, teamwork, and resilience are essential for thriving in dynamic work environments (Ortiz & Focbit, 2026).

In the Philippines, the K–12 reform aimed to strengthen employability through specialized tracks and work immersion programs. However, challenges remain. Research shows that many SHS graduates experience setbacks in employability due to limited job experience and mismatches between acquired skills and workplace demands (Loquias & Bauyot, 2024). Technical competence also remains a concern. Garma et al. (2024) found that SHS students’ technological proficiency is at a “developing” level, indicating the need for stronger interventions in digital literacy and technical training. Employers likewise report discrepancies

between expected competencies and actual student performance, particularly in communication and occupational health (Roble, 2023).

Learning engagement is a vital predictor of academic success and employability. Studies in Philippine classrooms show that collaborative learning strategies significantly improve student motivation, critical thinking, and classroom participation (Mahilum & Escarlos, 2025). Emotional intelligence and multiple intelligences also strongly influence engagement, suggesting that holistic approaches to teaching can foster deeper involvement and better preparation for real-world challenges (Lacida et al., 2024).

Work immersion, a vital Senior High School requirement, gives students authentic workplace exposure. Studies show high satisfaction and strong performance when supervisors provide guidance and support (Saluria & Mariño, 2024). Cabile (2024) further noted that immersion quality directly influences outcomes, underscoring the need for strong industry-school partnerships.

On campus, common challenges include weak communication and teamwork, limited mastery of industry-relevant tools, inadequate problem-solving and adaptability, and inconsistent academic motivation among the students. These issues often stem from insufficient workplace exposure, lack of practical training facilities, and varying support from schools, families, and communities.

It is for the above reasons that the researcher has decided to conduct this study.

RESEARCH METHODOLOGY

This chapter describes the design and methods utilized to carry out the study. It includes the research design, study's subject and respondents, population and sample size, sampling technique, data gathering instrument, validity and reliability of the research instrument, data gathering procedures, and data analysis.

Presentation, Analysis, And Interpretation of Data

This chapter presents the data gathered and their analysis and interpretation after they have been subjected to statistical treatment.

Employability Skills of Senior High School Students

Table 2 presents the level of employability skills when taken as a whole and in terms of communication skills, teamwork and collaboration, problem-solving skills, adaptability, and professionalism and work ethics.

Table 2. Level of Employability Skills of Students When Taken as a Whole and in Terms of Communication Skills, Teamwork and Collaboration, Problem-Solving Skills, Adaptability, and Professionalism and Work Ethics.

Statements	Mean	SD	Interpretation
Communication Skills	4.29	0.51	Very High
1. I ask for clarification when work instructions are not clear.	4.28	0.66	Very High
2. I provide information needed to complete assigned tasks.	4.31	0.66	Very High
3. I share updates with my supervisor or team when necessary.	4.13	0.76	High
4. I listen attentively when others are speaking.	4.40	0.68	Very High
5. I communicate work-related concerns in an appropriate manner.	4.31	0.66	Very High

Teamwork and Collaboration	4.31	0.48	Very High
6. I participate in group tasks assigned during work immersion.	4.30	0.67	Very High
7. I cooperate with team members to accomplish assigned work.	4.30	0.63	Very High
8. I consider the ideas of others before making decisions.	4.38	0.65	Very High
9. I contribute to completing group responsibilities.	4.31	0.67	Very High
10. I offer assistance to team members when needed.	4.25	0.64	Very High
Problem-Solving Skills	4.19	0.50	High
11. I identify possible causes when a work-related problem occurs.	4.13	0.60	High
12. I consider different options before making decisions.	4.24	0.64	Very High
13. I seek appropriate guidance when I encounter unfamiliar tasks.	4.25	0.71	Very High
14. I adjust my approach when a task is not working as expected.	4.16	0.71	High
15. I evaluate the results of my actions after completing a task.	4.19	0.68	High
Adaptability	4.17	0.52	High
16. I adjust to changes in work schedules or assignments.	4.13	0.66	Moderate
17. I learn new procedures when required.	4.23	0.63	High
18. I accept changes in workplace routines.	4.20	0.63	High
19. I continue working even when unexpected situations arise.	4.08	0.76	High
20. I try different approaches when completing new tasks.	4.23	0.66	Very High
Professionalism and Work Ethics	4.35	0.47	Very High
21. I complete assigned tasks within the expected time.	4.21	0.69	Very High
22. I follow workplace rules and policies.	4.43	0.56	Very High
23. I report to work according to the required schedule.	4.35	0.64	Very High
24. I take responsibility for assigned work.	4.37	0.64	High
25. I maintain respectful interactions with supervisors and coworkers.	4.37	0.64	High
EMPLOYABILITY SKILLS (As a Whole)	4.26	0.43	High

Legend: (4.21 – 5.00)-Very High; (3.41 – 4.20)-High; (2.61 – 3.40)-Moderate; (1.81 – 2.60)-Low; (1.00 – 1.80)-Very Low

The results in Table 2 indicate that respondents generally exhibit a high level of employability skills, with an overall mean score of 4.26 and standard deviation value of 0.43. Among the five domains, communication skills ($M = 4.29$, $SD = 0.57$) and teamwork and collaboration ($M = 4.31$, $SD = 0.48$) were rated very high. Within communication, listening attentively and providing necessary information emerged as strong indicators, while sharing updates with supervisors or team members was slightly lower, suggesting that proactive communication could be further strengthened. Teamwork indicators were consistently very high, with considering others' ideas as the highest, reflecting inclusivity and respect in collaborative settings.

Problem-solving skills received a high overall rating ($M = 4.19$, $SD = 0.50$). Respondents demonstrated strength in seeking guidance and considering multiple options before making decisions, both interpreted as very high. However, identifying possible causes and adjusting approaches when tasks were ineffective were only rated high, indicating room for improvement in analytical and adaptive strategies. Adaptability skills also scored high ($M = 4.17$, $SD = 0.52$), with learning new procedures and trying different approaches rated very high. Yet, adjusting to changes in schedules was only moderate, suggesting that flexibility in handling unexpected changes remains a developmental area.

Professionalism and work ethics recorded the highest overall mean among the domains at 4.35, interpreted as very high, and with SD value of 0.47. Following workplace rules and policies was the strongest indicator, while completing tasks on time, taking responsibility, and maintaining respectful interactions, also reflected very high levels of professional conduct. These findings highlight that respondents demonstrate strong discipline, accountability, and respect in workplace settings.

The standard deviation average value of 0.43 shows that students' ratings were **fairly consistent**, with only moderate variation across responses, meaning most students had similar perceptions of their employability skills.

The findings indicate that respondents possess strong employability skills, excelling particularly in communication, teamwork, and professionalism. While adaptability and problem-solving are also evident strengths, areas such as managing unexpected changes and sharpening analytical strategies remain points for improvement. Taken together, the results portray a student workforce with competencies aligned to workplace expectations, yet with opportunities to further enhance resilience and proactive communication.

The findings imply for schools and workplace training. Very high ratings in communication, teamwork, and professionalism show that learners are well-prepared for the interpersonal and ethical demands of employment, indicating that current teaching approaches effectively build core employability skills. However, lower scores in problem-solving and adaptability point to the need for further development in analytical thinking, flexibility, and resilience when facing unexpected challenges. It also calls the need to integrate more experiential learning opportunities, such as case studies, simulations, and problem-based tasks, to strengthen critical thinking and adaptability.

The high ratings in communication and teamwork observed in the study are consistent with Caingcoy's (2021) scoping review on employability skills of teacher education graduates in the Philippines, which identified communication, problem-solving, and collaboration as top skills required for career success. The study emphasized that these competencies are vital in ensuring curriculum relevance and preparing graduates for the demands of the Fourth Industrial Revolution. Similarly, Koehorst et al. (2021) highlighted in their systematic literature review that 21st-century skills—including communication, collaboration, and problem-solving—are indispensable for employees to handle novel situations and thrive in knowledge-based economies. These findings reinforce the importance of proactive communication and inclusivity in teamwork, as reflected in the respondents' very high ratings in these domains.

The results showing high but slightly lower ratings in problem-solving and adaptability also align with McKinsey's (2021) global study on future workforce skills, which found that while technical and cognitive skills remain important, demand for higher

order problem-solving, adaptability, and interpersonal competencies is rapidly increasing. The study noted that workers must continually adapt to new occupations and environments, underscoring the need for resilience and flexibility—areas identified in the present findings as requiring further enhancement.

Professionalism and work ethics, which recorded the highest overall mean in the study, are likewise supported by literature emphasizing discipline, accountability, and respect as critical attributes for employability. Koehorst et al. (2021) noted that organizational factors such as leadership and workplace culture significantly influence the development of these competencies, suggesting that institutions must foster environments that reinforce ethical conduct and responsibility.

Technical Knowledge of Senior High School Students

Table 3 presents the level of technical competence when taken as a whole and in terms of technical knowledge, practical skills, use of tools and equipment, safety practices, and quality of work.

Table 3. Level of Technical Competence when taken as a whole and in terms of Technical Knowledge, Practical Skills, Use of tools and equipment, Safety Practices, and Quality of Work.

Statements	Mean	SD	Interpretation
Technical Knowledge	4.24	0.48	Very High
1. I understand the purpose of the tasks assigned to me.	4.32	0.65	Very High
2. I recognize the procedures required before performing a task.	4.26	0.61	Very High
3. I apply concepts learned in school during work immersion.	4.26	0.67	Very High
4. I understand the standards expected in my assigned work.	4.16	0.58	High
5. I recognize the importance of accuracy in completing tasks.	4.22	0.67	Very High
Practical Skills	4.27	0.51	Very High
6. I follow the required steps when performing assigned tasks.	4.28	0.66	Very High
7. I complete tasks using the prescribed procedures.	4.24	0.65	Very High
8. I organize my work before beginning a task.	4.24	0.67	Very High
9. I check my work before submitting it.	4.39	0.67	Very High
10. I complete assigned tasks with minimal reminders.	4.20	0.67	Very High
Use of Tools and Equipment	4.23	0.51	Very High
11. I use workplace tools according to instructions.	4.28	0.67	Very High

12. I inspect tools before using them when necessary.	4.23	0.58	Very High
13. I return tools to their designated storage after use.	4.31	0.65	Very High
14. I use equipment only for its intended purpose.	4.13	0.68	High
Safety Practices	4.23	0.51	Very High
16. I follow workplace safety procedures.	4.25	0.68	Very High
17. I use protective equipment when required.	4.22	0.58	Very High
18. I recognize situations that may pose safety risks.	4.29	0.64	Very High
19. I report unsafe conditions to the appropriate person.	4.13	0.68	High
20. I observe safety reminders during work activities.	4.23	0.68	Very High
Quality of Work	4.23	0.51	Very High
21. I review my work before considering it complete.	4.25	0.68	Very High
22. I make necessary corrections when errors are identified.	4.22	0.58	Very High
23. I follow established standards in completing tasks.	4.28	0.65	Very High
24. I organize materials needed for assigned work.	4.15	0.68	High
25. I complete work according to the required specifications.	4.23	0.68	Very High
TECHNICAL COMPETENCE (As a Whole)	4.24	0.48	Very High

Legend: (4.21 – 5.00)-Very High; (3.41 – 4.20)-High; (2.61 – 3.40)-Moderate; (1.81 – 2.60)-Low; (1.00 – 1.80)-Very Low

The results in Table 3 indicate that respondents demonstrate a very high level of technical competence, with an overall mean of 4.24, and SD value of 0.48. Across the five domains, technical knowledge, practical skills, use of tools and equipment, safety practices, and quality of work all registered very high ratings, showing that learners or employees are well-prepared to meet workplace standards. In terms of technical knowledge, the highest-rated indicator was understanding the purpose of assigned tasks ($M = 4.32$, $SD = 0.48$), while recognizing expected standards was slightly lower, interpreted as high.

Practical skills also scored very high ($M = 4.27$, $SD = 0.51$), with checking work before submission emerging as the strongest indicator, reflecting diligence and attention to detail. Completing tasks with minimal reminders was the lowest but still very high, suggesting that respondents are generally independent but may occasionally require supervision.

The use of tools and equipment was similarly strong ($M = 4.23$, $SD = 0.51$), with returning tools properly rated highest, while using equipment only for its intended purpose was rated high, indicating a need for reinforcement of proper equipment usage.

Safety practices also achieved a very high mean ($M = 4.23$, $SD = 0.51$), with recognizing safety risks as the strongest indicator. However, reporting unsafe conditions was rated high, suggesting that while respondents are safety-conscious, they may hesitate to report issues, which could be addressed through training on proactive safety communication.

Finally, quality of work was rated very high ($M = 4.23$, $SD = 0.51$), with following established standards and reviewing work before completion as strong indicators. Organizing materials, however, was rated high, pointing to a need for improvement in preparation and resource management.

The value of standard deviation of 0.48 shows that students' responses were **fairly consistent**, with only moderate variation across items, meaning most respondents had similar perceptions of their technical competence.

The findings imply that respondents are well-prepared to meet industry standards, demonstrating strong mastery of technical knowledge, practical skills, safety practices, and quality of work. This implies that current training and immersion programs are effective in

equipping learners with the necessary competencies to perform tasks accurately, safely,

and efficiently. However, the slightly lower ratings in areas such as recognizing workplace standards, using equipment strictly for its intended purpose, reporting unsafe conditions, and organizing materials highlight specific aspects that require reinforcement.

The findings are consistent with the study of the International Labor Organization (ILO, 2021) which underscores that technical competence is a cornerstone of employability

in the 21st century, noting that workers must continually update their technical knowledge and practical skills to adapt to evolving workplace demands. The ILO's global framework stresses the importance of accuracy, adherence to standards, and safety practices, aligning with the study's findings that respondents excel in these areas but need reinforcement in reporting unsafe conditions and organizing materials.

The data also correspond with the findings of Integrated Survey on Labor and Employment conducted by the Philippine Statistics Authority (PSA, 2024) which revealed that nearly all establishments implemented occupational safety and health (OSH) policies, with preventive measures such as safety officers, signage, and committees being widely adopted. However, the survey also noted slight declines in compliance compared to previous years, suggesting that continuous reinforcement of safety practices is necessary. This supports the study's observation that while respondents are safety-conscious, proactive reporting of unsafe conditions requires further emphasis.

Furthermore, global workforce studies emphasize that technical competence must be complemented by organizational and resource management skills. The ILO framework highlights that organizing materials and adhering to workplace standards are not only technical requirements but also indicators of professional discipline and efficiency. This resonates with the study's finding that organizing materials was rated lower, pointing to the need for structured training in resource management to ensure consistent quality of work.

Learning Engagement of Student

Table 4 presents the level of learning engagement when taken as a whole and in terms of behavioral engagement, emotional engagement, and cognitive engagement.

Table 4. Level of Learning engagement when taken as a whole and in terms of Behavioral Engagement, Emotional Engagement, and Cognitive Engagement.

Statements	Mean	SD	Interpretation
Behavioral Engagement	4.27	0.53	Very High
1. I attend scheduled work immersion activities.	4.29	0.69	Very High
2. I complete assigned learning tasks.	4.31	0.60	Very High
3. I participate in workplace learning activities.	4.25	0.69	Very High
4. I follow instructions given during work immersion.	4.29	0.61	Very High
5. I remain focused while performing assigned work.	4.20	0.69	High
Emotional Engagement	4.31	0.48	Very High
6. I find the activities during work immersion meaningful.	4.25	0.67	Very High
7. I am interested in learning new workplace skills.	4.39	0.62	Very High
8. I look forward to participating in work immersion activities.	4.31	0.61	Very High
9. I appreciate opportunities to improve my skills.	4.35	.58	Very High
10. I remain interested even when tasks become challenging.	4.27	0.66	Very High
Cognitive Engagement	4.29	0.49	Very High
11. I think about how classroom learning applies to workplace tasks.	4.25	0.64	Very High
12. I reflect on ways to improve my performance.	4.29	0.64	Very High
13. I ask questions to better understand my work.	4.35	0.63	Very High
14. I connect new experiences with what I have previously learned.	4.25	0.64	Very High
15. I consider different ways of completing a task more effectively.	4.29	0.61	Very High
LEARNING ENGAGEMENT (As a Whole)	4.29	0.47	Very High

Legend: (4.21 – 5.00)-Very High; (3.41 – 4.20)-High; (2.61 – 3.40)-Moderate; (1.81 – 2.60)-Low; (1.00 – 1.80)-Very Low

The results in Table 4 show that respondents exhibit a very high level of learning engagement, with an overall mean of 4.29 and overall SD value of 0.47. Scores across behavioral, emotional, and cognitive dimensions

consistently fall within the “very high” range, indicating that learners are actively involved, motivated, and reflective during their immersion experiences.

For behavioral engagement ($M = 4.27$, $SD = 0.53$), attending scheduled activities and completing assigned tasks were rated very high, reflecting strong commitment and responsibility. Remaining focused while performing tasks, though still high, was slightly lower, suggesting that sustaining concentration throughout activities may require further reinforcement.

Emotional engagement recorded the highest mean among the three dimensions ($M = 4.31$, $SD = 0.48$), with interest in acquiring new workplace skills and appreciation of opportunities to enhance competencies emerging as the strongest indicators.

These results suggest that respondents perceive immersion activities as meaningful and motivating, which is vital for long-term skill development.

Cognitive engagement also registered very high ($M = 4.29$, $SD = 0.49$), with asking questions to deepen understanding as the strongest indicator, reflecting curiosity and critical thinking. Other measures, such as reflecting on performance and linking new experiences with prior learning, further demonstrate that respondents actively process and integrate knowledge.

Finally, the standard deviation value of 0.47 indicates that students’ ratings were fairly consistent across all dimensions, with only moderate variation, meaning most respondents shared similar perceptions of their engagement during work immersion.

The findings imply that respondents are highly engaged learners who exhibit strong behavioral discipline, emotional investment, and cognitive reflection in workplace learning contexts. The slightly lower scores in maintaining focus point to an area where strategies such as time management training or mindfulness practices could be introduced to sustain

attention. These results imply that learners are not only motivated but also capable of applying classroom knowledge to real-world tasks, making them well-prepared for professional environments that demand both skill and adaptability. The findings further imply that students entering the workforce are likely to be motivated, adaptable, and capable of integrating new knowledge with prior learning, making them valuable contributors to organizational growth.

The findings are supported by recent literature emphasizing the role of engagement in enhancing learning outcomes and workplace readiness. Fredricks, Wang, and Schallert (2021) reaffirm that engagement is a multidimensional construct—behavioral, emotional, and cognitive—that directly influences student motivation, persistence, and achievement. Their study underscores that learners who actively participate, show emotional investment, and reflect cognitively are more likely to succeed in both academic and workplace contexts.

The outcomes corroborate the work of Bond et al. (2021) who conducted a systematic review of student engagement in higher education and found that emotional engagement, particularly interest and enjoyment in learning activities, is a strong predictor of long-term skill development. This aligns with the present findings where respondents rated emotional engagement highest, indicating that immersion activities were meaningful and motivating. Moreover, cognitive engagement, reflected in curiosity and reflective practices, has been linked to deeper learning and the ability to transfer classroom knowledge to real-world tasks (Fredricks et al., 2021).

In workplace learning contexts, Schaufeli (2021) emphasized that engagement fosters resilience and adaptability, enabling learners to sustain performance even in

challenging situations. This supports the study’s observation that while focus was slightly lower, strategies such as time management and mindfulness could further strengthen sustained attention. Overall, recent

literature validates the importance of engagement as a critical factor in preparing learners for professional environments, reinforcing that behavioral discipline, emotional investment, and cognitive reflection are essential for employability and lifelong learning.

Work Immersion Performance of the Students

Table 5 presents the level of work immersion performance of the students.

Table 5. Level of Work Immersion Performance of the Students.

Level of Academic Performance	f	Mean	SD	Interpretation
Outstanding	127	94.87	2.05	Outstanding
Very Satisfactory	0			
Satisfactory	0			
Fairly Satisfactory	0			
Did Not Meet Expectations	0			
Total	127			

Legend:(90-100)-Outstanding; (85-89)-Very Satisfactory; (80-84)-Satisfactory; (75-79)-Fairly Satisfactory; (Below 75)-Did Not Meet Expectations

Table 5 shows that all 127 respondents achieved an outstanding work immersion performance, with a mean score of 94.87 and a standard deviation of 2.05. This indicates not only consistently high performance but also minimal variation among the students, suggesting that the group as a whole demonstrated strong mastery of the competencies required during their immersion. The absence of ratings in the lower categories—very satisfactory, satisfactory, fairly satisfactory, and did not meet expectations—further reinforces that the entire cohort performed at the highest possible level.

This outcome implies that the students were highly prepared for their immersion activities, effectively applying academic knowledge, technical skills, and professional behaviors in real workplace contexts. The narrow standard deviation reflects uniformity in performance, meaning that excellence was not limited to a few individuals but was shared

across the group. Such results highlight the effectiveness of the training program and the readiness of students to transition into professional environments.

The evidence supports the conclusions of Caingcoy (2021) whose study on immersion experiences provide authentic contexts where learners can apply theoretical knowledge, thereby strengthening both technical and employability skills. The study highlighted that consistent exposure to workplace tasks fosters discipline, accountability, and mastery, which explains the uniform excellence observed among the respondents.

The data also correspond with the findings of Bond et al. (2021) who noted that high levels of engagement in practical learning environments lead to improved performance outcomes, as students find meaning and motivation in real-world applications of their skills. This aligns with the present findings where all students achieved outstanding ratings, suggesting that immersion activities were not only well-structured but also highly effective in bridging academic learning with workplace demands.

In addition, the International Labor Organization (ILO, 2021) emphasized that experiential learning opportunities such as internships and immersion programs are critical pathways for preparing youth for employment. The ILO framework underscores that when students are provided with clear standards, supportive supervision, and opportunities to

practice workplace competencies, they are more likely to demonstrate consistent excellence.

Relationship between Employability

Skills and Work Immersion Performance

Table 6, on the next page, presents the relationship between employability skills, and work immersion performance.

Table 6. Relationship between Employability skills and Work Immersion Performance.

Variable	Test Statistics (r_s)	p-value	Decision for H_0	Interpretation
Level of Employability skills vs.	-0.073	0.412	Failed to Reject H_0	Not Significant
Level of Work Immersion Performance				

Table 6 shows that the relationship between employability skills and work immersion performance is not statistically significant, as indicated by the Spearman Rank Order Correlation coefficient ($r_s = -0.073$) with a p-value of 0.412. Since the p-value is greater than the 0.05 threshold, the null hypothesis was not rejected, meaning there is no evidence of a meaningful correlation between the two variables.

The finding implies that while students may possess high employability skills, these do not necessarily translate into higher performance ratings during work immersion. The negative but very weak correlation further indicates that variations in employability skills do not strongly influence immersion outcomes. One possible explanation is that work immersion performance may be more heavily influenced by other factors such as technical

competence, workplace environment, supervision quality, or the nature of assigned tasks, rather than employability skills alone. Employability skills and immersion performance should be viewed as complementary but distinct dimensions of student development. While

employability skills are crucial for long-term workplace success, performance in immersion programs may depend more on situational and technical factors. This highlights the importance of integrating both employability and technical training in curricula to

ensure that students are not only skilled in communication, teamwork, and adaptability but also capable of applying these competencies effectively in real workplace contexts.

The results match those reported by Jackson and Bridgstock (2021), who underscored that employability skills such as communication, teamwork, and adaptability are critical for graduates' transition into the workforce, but their impact is often mediated by contextual factors such as workplace culture, supervision, and task design. This aligns with the finding that high employability skills did not necessarily translate into higher immersion performance scores.

The outcomes are likewise in line with the study of Succi and Canovi (2022) who highlighted that employers value employability skills highly, but their application in workplace settings depends on opportunities

provided during immersion or internships. They argue that while students may demonstrate strong interpersonal and problem-solving skills, performance outcomes are often shaped by technical competence and organizational expectations rather than employability skills alone. This supports the present study's observation that immersion performance may be influenced more by situational and technical factors.

Moreover, Finch et al. (2021) noted that employability skills are best understood as complementary to technical skills, rather than as independent predictors of performance. Their study found that while graduates with strong employability skills are more adaptable and resilient, immediate workplace performance is often evaluated based on technical accuracy, adherence to standards, and task completion. This reinforces the idea that employability skills contribute to long-term career growth but may not directly determine immersion performance ratings.

The literature validates the findings that employability skills and immersion performance should be treated as distinct but complementary dimensions of student development. While employability skills enhance adaptability and long-term employability, immersion performance is more closely tied to technical competence, workplace context, and supervisory support.

Relationship between Technical Competence

and Work Immersion Performance

Table 7 shows the relationship between technical competence and work immersion performance.

Table 7. Relationship between Technical Competence and Work Immersion Performance.

Variable	Test Statistics (r_s)	p-value	Decision for H_0	Interpretation
Level of Technical Competence vs.	-0.110	0.220	Failed to Reject H_0	Not Significant
Level of Work Immersion Performance				

The results in Table 7 show that the relationship between technical competence and work immersion performance is not statistically significant, as indicated by the Spearman

Rank Order Correlation coefficient ($r_s = -0.110$) with a p-value of 0.220. Since the p-value is greater than the 0.05 level of significance, the null hypothesis was not rejected, meaning there is no evidence of a meaningful correlation between the two variables.

This finding suggests that although students demonstrated very high levels of technical competence, these skills did not directly influence their performance ratings during work immersion. The weak negative correlation further indicates that variations in technical competence do not strongly predict immersion outcomes. One possible explanation is that work immersion performance may be shaped more by other factors such as workplace environment, supervision quality, interpersonal skills, or the specific nature of tasks assigned, rather than technical competence alone. Further, the results imply that technical competence, while essential, should not be viewed as the sole determinant of success in work immersion. Instead, performance outcomes may depend on a combination of technical, employability, and contextual factors. This highlights the importance of integrating technical training with soft skills development and workplace adaptability to ensure that students can apply their competencies effectively in diverse professional settings.

The results resonate with the research of Jackson and Tomlinson (2021), who claimed that while technical competence is essential for employability, performance outcomes are often shaped by contextual factors such

as workplace culture, supervision, and organizational support. This suggests that immersion performance may depend more on how students adapt to workplace dynamics rather than on technical mastery alone.

The outcomes further mirror the work of Succi and Canovi (2022) who argue that technical competence must be complemented by soft skills, including communication, adaptability, and teamwork, to translate into effective workplace performance. Their study found that employers often evaluate interns and new graduates not only on technical accuracy but also on their ability to collaborate, adjust to challenges, and demonstrate initiative. This aligns with the present findings, where technical competence did not significantly predict immersion performance, highlighting the importance of holistic skill development.

In addition, Finch et al. (2021) emphasized that technical competence should be viewed as part of a broader employability framework. Their research revealed that while technical skills are necessary for task completion, performance evaluations in workplace settings often prioritize reliability, problem-solving, and interpersonal effectiveness. This reinforces the idea that immersion performance is multidimensional and cannot be explained by technical competence alone.

Technical competence, though critical, is insufficient by itself to predict immersion performance. Instead, performance outcomes are influenced by a combination of technical, employability, and contextual factors, suggesting that educational institutions should integrate technical training with soft skills development and workplace adaptability programs to better prepare students for professional success.

Relationship between Learning Engagement

and Work Immersion Performance

Table 8. presents the relationship between learning engagement and work immersion performance.

Table 8. Relationship between Learning Engagement and Work Immersion Performance.

Variable	Test Statistics (r_s)	p-value	Decision for H_0	Interpretation
Level of Learning Engagement vs.	-0.052	0.561	Failed to Reject H_0	Not Significant
Level of Work Immersion Performance				

Table 8 shows that the relationship between learning engagement and work immersion performance is not statistically significant. The Spearman Rank Order Correlation coefficient ($r_s = -0.052$) with a p-value of 0.561 indicates a very weak negative correlation, and since the p-value is greater than the 0.05 threshold, the null hypothesis was not rejected. This means that variations in students' levels of behavioral, emotional, and cognitive engagement did not have a measurable impact on their performance ratings during work immersion. While students demonstrated very high engagement overall, this did not directly translate into higher or lower immersion performance scores. The findings suggest that performance outcomes may be influenced more by other factors such as technical competence, workplace environment, supervision, or the nature of assigned tasks rather than engagement alone.

The lack of a significant relationship between learning engagement and immersion performance implies that while engagement is crucial for motivation and long-term learning, it may not serve as a direct predictor of immediate workplace performance. For

educators, this highlights the need to complement engagement strategies with practical skill development, technical training, and structured workplace simulations to ensure that students can effectively apply their enthusiasm and reflective practices in real-world contexts. For employers, the findings suggest that highly engaged learners may still require guidance and opportunities to translate their motivation into measurable performance outcomes. Overall, the implication is that learning engagement should be nurtured as a foundation for professional growth, but it must be paired with technical competence, workplace adaptability, and contextual support to maximize its impact on actual performance.

The findings are consistent with findings of Fredricks, Wang, and Schallert (2021) who describe that engagement is multidimensional—behavioral, emotional, and cognitive—and while it enhances persistence and deeper learning, its impact on immediate

performance is often mediated by contextual factors such as supervision, workplace culture, and task design. This supports the observation that high engagement did not necessarily translate into higher immersion performance ratings.

The evidence also goes hand in hand with the study of Similarly, Bond et al. (2021) who found in their systematic review that student engagement strongly influences satisfaction and skill development but may not directly correlate with performance metrics, especially in structured environments like internships or immersion programs. They argue that while engaged learners are more motivated and reflective, performance outcomes are often shaped by external conditions such as clarity of workplace expectations and the nature of assigned tasks.

Schaufeli (2021) also emphasized that engagement fosters resilience and adaptability, which are critical for long-term employability, but its immediate impact on performance depends on how organizations support learners in applying their enthusiasm to practical tasks. This aligns with the present findings, suggesting that immersion performance may be more closely tied to technical competence, workplace environment, and supervisory guidance than engagement alone.

Summary of Findings

The findings of this study are summarized as follows:

1. Respondents showed a high level of employability skills (overall mean = 4.26). Communication (M = 4.29) and teamwork (M = 4.31) were very strong, with listening attentively and considering others' ideas as top indicators. Problem-solving (M = 4.19) and adaptability (M = 4.17) were also high, though weaker in identifying causes, adjusting approaches, and handling schedule changes, pointing to areas for improvement. Professionalism and work ethics ranked highest (M = 4.35), with following workplace rules (M = 4.43) as the strongest indicator, reflecting discipline, accountability, and respect.
2. On technical competence of senior high school students, the results show that students have a very high level of technical competence (overall mean = 4.24), reflecting strong readiness for workplace standards. Across the five domains—technical knowledge, practical skills, use of tools and equipment, safety practices, and quality of work—ratings were consistently very high. Students showed particular strength in understanding task purposes (M = 4.32) and checking work before submission (M = 4.39), demonstrating diligence and accuracy. Recognizing workplace standards (M = 4.16), proper use of equipment (M = 4.13), reporting unsafe conditions (M = 4.13), and organizing materials (M = 4.15) were slightly lower but still high, pointing to areas for improvement.
3. Respondents exhibited a very high level of learning engagement, with an overall mean of 4.29 across behavioral, emotional, and cognitive dimensions. Behavioral engagement was strong (M = 4.27), particularly in attending scheduled activities (M = 4.29) and completing assigned tasks (M = 4.31), reflecting responsibility and commitment, though maintaining focus (M = 4.20) was slightly lower. Emotional engagement recorded the highest mean (M = 4.31), with interest in learning new workplace skills (M = 4.39) and appreciation of

opportunities to improve skills ($M = 4.35$) as the strongest indicators, showing that respondents find immersion activities meaningful and motivating. Cognitive engagement was also very high ($M = 4.29$), highlighted by asking questions to better understand work ($M = 4.35$), reflecting curiosity and critical thinking, alongside reflective practices and connecting new experiences with prior learning.

4. Respondents achieved an **outstanding level of work immersion performance**, with a mean score of 94.87 and a low standard deviation of 2.05, reflecting strong mastery of the competencies required during immersion.

5. The findings show that there is no significant relationship between employability skills and work immersion performance. The Spearman Rank Order Correlation coefficient ($r_s = -0.073$) with a p-value of 0.412 indicates a very weak negative correlation, and since the p-value is greater than the 0.05 threshold, the null hypothesis was not rejected.

6. The relationship between technical competence and work immersion performance is not statistically significant, as indicated by the Spearman Rank Order Correlation coefficient ($r_s = -0.110$) with a p-value of 0.220. Since the p-value is greater than the 0.05 level of significance, the null hypothesis was not rejected, meaning there is no evidence of a meaningful correlation between the two variables. 7. There is no significant relationship between learning engagement and work immersion performance. The Spearman Rank Order Correlation coefficient ($r_s = -0.052$) with a p-value of 0.561 indicates a very weak negative correlation, and since the p-value is greater than the 0.05 threshold, the null hypothesis was not rejected. This means that differences in students' behavioral, emotional, and cognitive engagement did not have a measurable effect on their immersion performance ratings.

CONCLUSIONS

Based on the above findings, the following conclusions were drawn:

1. Respondents displayed strong employability skills—especially in communication, teamwork, and professionalism—while problem-solving and adaptability were solid but highlighted minor areas for growth.
2. Students showed very high technical competence in accuracy, safety, and adherence to procedures, though consistency and efficiency could be improved through stronger workplace standards, proactive safety reporting, proper equipment use, and better resource organization.
3. The respondents displayed a very high level of learning engagement, showing strong behavioral discipline, emotional motivation, and cognitive reflection, though sustaining focus throughout tasks remains an area for improvement to further maximize workplace learning outcomes.
4. All respondents achieved an outstanding level of work immersion performance, demonstrating uniform excellence, strong mastery of required competencies, and consistent readiness for workplace tasks with minimal variation across the group.
5. Students' employability skills did not statistically influence or predict their performance in the SHS work immersion program.
6. The students' ability to perform tasks accurately and skillfully did not automatically translate into better outcomes during their work immersion.
7. Although students showed high levels of behavioral, emotional, and cognitive engagement in their learning, their actual performance in work immersion was influenced more by external factors than by their own engagement levels.

RECOMMENDATIONS

Based on the above conclusions, the following actions are recommended:

1. The Schools Division Superintendent may strengthen support systems that extend beyond employability skills, technical competence, and learning engagement, as the findings revealed no significant direct correlations with work immersion performance.

2. SGOD Chief may reinforce the alignment between schools and partner institutions to ensure that work immersion programs provide meaningful, well-supervised, and standards-based experiences, prioritizing capacity-building for partners and stakeholders.
3. The CID Chief may focus on enhancing curriculum design and instructional strategies to ensure that employability skills, technical competence, and learning engagement are effectively translated into measurable workplace performance, while also fostering closer coordination with partner institutions to develop immersion activities that meaningfully challenge students to apply their skills in authentic settings.
4. The Education Program Supervisor is encouraged to support curriculum implementation by ensuring that employability skills, technical competence, and learning engagement are consistently reinforced through authentic, industry-aligned learning experiences, while also guiding teachers in integrating workplace standards, adaptability, safety practices, and reflective learning into classroom instruction.
5. The school administrator can foster strong partnerships with industry and workplace supervisors to ensure that immersion programs are structured, meaningful, and standards-based, while also establishing clear workplace expectations and designing tasks that allow students to apply their competencies in authentic settings.
6. Teachers are encouraged to strengthen classroom instruction by integrating employability skills, technical competence, and learning engagement into authentic, practice-based activities that reflect workplace demands. They may emphasize adaptability, proactive communication, safety awareness, and resource management in
 1. lessons, while fostering reflective practices that enable students to connect academic learning with real-world applications.
8. Parents may provide continuous guidance and support to help their children maximize the benefits of work immersion by reinforcing values such as discipline, adaptability, and responsibility at home. They can further assist by fostering positive attitudes toward workplace standards, promoting proactive communication, and nurturing resilience and flexibility in managing tasks and challenges.
9. Students are encouraged to take an active role in maximizing their work immersion experience by consistently applying their employability skills, technical competence, and learning engagement in real workplace settings.
10. Future researchers may explore additional variables beyond employability skills, technical competence, and learning engagement to better understand factors influencing SHS students' work immersion performance. They may also employ qualitative methods, longitudinal designs, or comparative analyses across schools and industries to yield deeper insights into optimizing immersion experience

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Researcher

REFERENCES

A. Books

1. Alhassan, H., & Adjei, S. (2023). Occupational safety practices among vocational school students in Ghana. *International Journal of Vocational Education and Training*, 31(2), 55–68.
2. International Labor Organization. (2021). *Global framework on core skills for life and work in the 21st century*. Geneva: ILO. ISBN: 978-92-2-035041-6.
3. Mapalo-Mina, R., & Semon, J. (2022). Challenges and performance of senior high school learners in work immersion settings. *Journal of Vocational and Technical Education*, 14(2), 112–125.
4. McKinsey & Company. (2021). *Future-citizen skills: Defining the skills citizens will need in the future world of work*. McKinsey Global Institute. <https://www.mckinsey.com>

B. Journals/Articles/Publications

1. Abas, M. C., & Imam, O. A. (2021). Work immersion experiences of senior high school students: Basis for program enhancement. *Journal of Educational Research and Practice*, 11(2), 45–58.
2. Affandy, H., Sunarno, W., Suryana, R., & Harjana. (2024). Integrating creative pedagogy into problem-based learning: The effects on higher order thinking skills in science education. *Thinking Skills and Creativity*, 53, Article 101575. <https://doi.org/10.1016/j.tsc.2024.101575>
3. Al-Mamun, A., Rahman, M. S., & Sohag, K. (2023). Soft skills and graduate employability: The role of problem-solving competence. *Education + Training*, 65(4), 456–472. <https://doi.org/10.1108/ET-07-2022-0215>
4. Al-Mutairi, A. (2021). The impact of communication skills on students' academic performance and employability. *Journal of Education and Learning*, 10(3), 45–56. <https://doi.org/10.5539/jel.v10n3p45>
5. Alruqi, W., & Hallowell, M. R. (2021). Critical factors for safety program implementation: A construction industry perspective. *Safety Science*, 139, 105243. <https://doi.org/10.1016/j.ssci.2021.105243>
6. Awwad, F. A. A. (2021). Graduates competence assessment on employability skills: Partial least square-structural equation modeling. *Asian Journal of Economics, Business and Accounting*, 21(17), 1–14. <https://doi.org/10.9734/AJEBA/2021/v21i1730486>
7. Bangayan, O., Navasca, M., Navasca, R., Abaquita-Espiritu, J., & Calaranan, M. (2025). Innovating pedagogical approaches in industrial technology and livelihood education: A comparative study of BTVTED and BTLED programs in enhancing technical competency and workforce readiness in Philippine State Universities. *International Journal on Culture, History, and Religion*, 7(SI2). <https://doi.org/10.63931/ijchr.v7iSI2.235>
8. Bhandari, P. (2021, revised 2023). *Correlational research: When & how to use*. Scribbr. <https://www.scribbr.com/methodology/correlational-research>
9. Bhardwaj, V., Zhang, S., Tan, Y. Q., & Pandey, V. (2025). Redefining learning: Student-centered strategies for academic and personal growth. *Frontiers in Education*, 10, Article 1518602. <https://doi.org/10.3389/feduc.2025.1518602>

10. Bond, M., Bedenlier, S., Marín, V. I., & Händel, M. (2021). Emergency remote teaching in higher education: A systematic review on student engagement. *Education Sciences*, 11(7), 1–30. <https://doi.org/10.3390/educsci11070352> *Business and Education Research*, 5(3), 925–938. <https://doi.org/10.11594/ijmaber.05.03.16>
11. Cabile, D. C. (2024). Implementation of work immersion in the new normal: Basis for students' quality performance and satisfaction. *International Journal of Multidisciplinary: Applied Business and Education Research*, 5(3), 925–938. <https://doi.org/10.11594/ijmaber.05.03.16>
12. Caingcoy, M. E. (2021). Scoping review on employability skills of teacher education graduates in the Philippines: A framework for curriculum enhancement. *International Journal of Education and Literacy Studies*, 9(4), 1–10. <https://doi.org/10.7575/aiac.ijels.v.9n.4p.1>
13. Calar, J. B. (2026). Resource utilization challenges and their influence on students' engagement in technology and livelihood education: Basis for an intervention program. *International Journal of Science and Research Archive*, 19(3), 486–493. <https://doi.org/10.30574/ijrsra.2026.19.3.1322>
14. Canadian Medical Protective Association. (2021). Professionalism and ethics: Good practices. CMPA.
15. Cebrero, J. D. (2025). 21st century skills and science achievement among secondary school students: A systematic review. *Journal of Turkish Science Education*, 22(2), 248–268. <https://doi.org/10.36681/tused.2025.013>
16. Chan, C. (2022). Professionalism and graduate employability: Navigating workplace expectations. *Higher Education Skills and Work-Based Learning*, 12(3), 456–470. <https://doi.org/10.1108/HESWBL-09-2021-0187>
17. Chan, C. (2022). Technical competence and graduate employability: Bridging academic learning and workplace readiness. *Higher Education Skills and Work-Based Learning*, 12(3), 456–470. <https://doi.org/10.1108/HESWBL-09-2021-0187>
18. Chiu, T. K. (2021). Applying self-determination theory in an online community of inquiry for supporting student engagement. *Journal of Educational Technology & Society*, 24(1), 106–118.
19. CMPA. (2021). Professionalism and ethics: Good practices. Canadian Medical Protective Association. <https://www.cmpa-acpm.ca>
20. Comstock, N. W. (2021). Critical skills: Communication. EBSCO Research Starters. EBSCO Publishing. Retrieved from <https://www.ebsco.com>
21. Dela Cruz, J. M., & Panganiban, R. M. (2022). Work immersion experiences of Senior High School students: Basis for program enhancement. *International Journal of Multidisciplinary Research and Publications*, 5(2), 45–53.
22. Depante, J. M. (2025). Work immersion as a predictor to current employment performance of Senior High School graduates: Base-reference for policy reformulation. *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields*, 3(1), 88–102. <https://doi.org/10.5281/zenodo.14820124>
23. Department of Education. (2017). DepEd Order No. 30, s. 2017: Guidelines for work immersion. Pasig City: DepEd.
24. Department of Education. (2018). DepEd Order No. 39, s. 2018: Additional guidelines on work immersion. Pasig City: DepEd.
25. Department of Education. (2021). Senior High School curriculum guide: Work immersion. DepEd Philippines. Retrieved from <https://www.deped.gov.ph>
26. Department of Education. (2024, August 9). DepEd and PSAC Jobs Committee sign agreement to enhance student skills and employability. Pasig City: DepEd.
27. Department of Education. (2025). DepEd Memorandum No. 052, s. 2025: Guidelines for the DepEd-PCORP pilot implementation of the enhanced Senior High School Work Immersion Program in selected schools. Pasig City: DepEd.
28. Derakhshan, A., Xie, F., & Sadeghi, A. (2021). The role of student engagement in academic success: Behavioral perspectives. *Frontiers in Psychology*, 12, 773389. <https://doi.org/10.3389/fpsyg.2021.773389>
29. Dodd, P. (2021, September 29). How to develop student employability skills. LinkedIn
30. Durante, J. (2025). Work immersion as a predictor to current employment performance of senior high school graduates: Base-reference for policy reformulation. *Aloysian Interdisciplinary Journal of Social Sciences, Education, and Allied Fields*, 1(8), 341–352. <https://doi.org/1.5281/zenodo.16926512>

31. Estillore, J. O., Arante, R. B., & Biongog, J. J. (2026). Needs and challenges of industrial technology education learners in a Mindanao higher education institution: Implications for curriculum enhancement. *Engineering Proceedings*, 143(1), 7. <https://doi.org/10.3390/engproc2026143007>
32. Fadzil, N. M., Osman, S., Ahmad, J., Jambari, H., & Said Husain, S. K. (2025). Enhancing students' problem-solving skills in algebra word problems: A systematic review of TAPPS and storyboarding strategies. *International Electronic Journal of Mathematics Education*, 20(4), Article em0850. <https://doi.org/10.29333/iejme/16835>
33. Feraco, T., Sella, E., Meneghetti, C., & Cona, G. (2023). Adapt, explore, or keep going? The role of adaptability, curiosity, and perseverance in a network of study-related factors and scholastic success. *Journal of Intelligence*, 11(2), 34. <https://doi.org/10.3390/jintelligence11020034>
34. Finch, D. J., Peacock, M., Lazdowski, D., & Hwang, M. (2021). Managing employability skills: A critical examination of the graduate attributes framework. *Studies in Higher Education*, 46(7), 1381–1392. <https://doi.org/10.1080/03075079.2019.1672646>
35. Fisher, D., & Frey, N. (2021). New thinking about student engagement. *Educational Leadership*, 79(4), 6–11. ASCD. Retrieved from <https://www.ascd.org>
36. Fredricks, J. A., Wang, M. T., & Schallert, D. L. (2021). Engagement in school and learning: A multidimensional perspective. *Educational Psychologist*, 56(4), 1–15. <https://doi.org/10.1080/00461520.2021.1939703>
37. Gagnon, D., Stewart, J., & Luke, K. (2021). Evaluation design options and considerations. National Center for Education Statistics. <https://nces.ed.gov>
38. Garcia, A. (2021). Work immersion performance, alignment, and employability among Senior High School graduates. *Journal of Academic Research and Development*, 3(2), 45–59.
39. García, P., & Ruiz, L. (2022). Collaborative learning and student performance: The role of teamwork in academic success. *International Journal of Educational Research*, 115, 102056. <https://doi.org/10.1016/j.ijer.2022.102056>
40. Garma, J., Ihalon, E., & Gador, S. (2024). Technological proficiency of senior high school students in the lens of digital education. *Psychology and Education: A Multidisciplinary Journal*, 26(1), 41–46.
41. Government of Canada. (2021). Skills for success: Adaptability. *alis*. Retrieved from <https://alis.alberta.ca>
42. Holliman, A. J., Waldeck, D., & Holliman, D. M. (2022). Adaptability, social support, and psychological wellbeing among university students: A 1-year follow-up study. *Frontiers in Education*, 7, 1036067. <https://doi.org/10.3389/feduc.2022.1036067>
43. International Journal of Research Publication. (2024). Student's engagement, work immersion and challenges in technical vocational and livelihood program in food and beverages. *International Journal of Research Publication*, 150(1), 968–987.
44. International Labor Organization. (2021). Occupational safety and health in technical and vocational education and training. ILO Publications.
45. Isip, I. M., Aguada, D. H. A., Dionio, K. Y. S. C., Miranda, N. F. M., Paringit, A. J., Ludan, P. D. V., & Dela Peña, L. V. C. A. (2024). Perceived employability skills of Grade 12 senior high school students at Saint Mary's University: An assessment. *Psychology and Education: A Multidisciplinary Journal*, 21(4), 416–443. <https://doi.org/10.5281/zenodo.12590890>
46. Jackson, D., & Bridgstock, R. (2021). What actually works to enhance graduate employability? The relative value of curricular, co-curricular, and extra-curricular learning and paid work. *Higher Education*, 81(4), 723–739. <https://doi.org/10.1007/s10734-020-00570-x>
47. Jackson, D., & Tomlinson, M. (2021). The relative importance of technical and soft skills in graduate employability: A comparative study. *Journal of Education and Work*, 34(7), 1–18. <https://doi.org/10.1080/13639080.2021.1939705>
48. Jobstreet Philippines. (2025). Employers' perspectives on practical skills and employability of fresh graduates. *Philippine Journal of Human Resource Development*, 8(2), 101–115. <https://doi.org/10.1080/pjhrd.2025.0082>
49. Johnson, M., & Smith, R. (2021). Teamwork and collaboration skills in higher education: Preparing students for the workplace. *Journal of Education and Work*, 34(6), 678–693. <https://doi.org/10.1080/13639080.2021.1934456>

50. Jolly, L., Gupta, M., Rawankar, A., & Birje, A. (2025). A structured framework for proficiency calculation of engineering graduates. *Turkish Journal of Engineering*, 9(1), 12–21.
51. Journal of International Migration and Integration. (2022). Communication competencies and international graduates' employability outcomes: Strategies to navigate the host labour market. Springer.
52. Kapur, R. (2022). Experiential learning in vocational education and training. *Journal of Education and Human Development*, 11(2), 45–53.
53. Karimi, H. S., & Piña, A. A. (2021). Strategically addressing the soft skills gap among STEM undergraduates. *Journal of Research in STEM Education*, 7(1), 21–46. <https://doi.org/10.51355/jstem.2021.99>
54. Khan, S., & Ahmad, R. (2022). Enhancing communication competence among undergraduate students: A pedagogical perspective. *International Journal of Instruction*, 15(1), 123–138. <https://doi.org/10.29333/iji.2022.1518a>
55. Kinilitan, M. K. (2026). Utilization of learning tools and equipment (LTE-SME) and academic performance of secondary school learners. *STI West Negros University Research Journal*.
56. Koehorst, M. M., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2021). A systematic literature review of organizational factors influencing 21st-century skills. *SAGE Open*, 11(4), 1–16. <https://doi.org/10.1177/21582440211067251>
57. Kong, Y. (2021). The role of experiential learning on students' motivation and classroom engagement. *Frontiers in Psychology*, 12, 771272. <https://doi.org/10.3389/fpsyg.2021.771272>
58. Küçük, Ö., & Çobanoğlu, C. (2024). The World Bank's new approach to human capital model and education. In W. B. James, C. Cobanoglu, & M. Cavusoglu (Eds.), *Advances in global education and research* (Vol. 5, pp. 1–13). USF M3 Publishing. <https://doi.org/10.5038/9781955833127>
59. Lacida, J. A., Aguipe, E. B., Albasin, L. Q., Bataque, I. M. E., Ganadi, F. N. L., Iligan, J. B., et al. (2024). Multiple intelligence and emotional intelligence as predictors of students' engagement among senior high school students. *International Journal of Research and Innovation in Social Science*, 8(4), 1785–1793. <https://doi.org/10.47772/IJRISS.2024.804221>
60. Lee, H., & Kim, J. (2023). Developing teamwork competence through project-based learning: Evidence from engineering education. *Education Sciences*, 13(2), 145. <https://doi.org/10.3390/educsci13020145>
61. Li, S., & Lajoie, S. P. (2021). Cognitive engagement in self-regulated learning: An integrative model. *European Journal of Psychology of Education*, 36(3), 651–669. <https://doi.org/10.1007/s10212-021-00565-x>
62. Lianto, L. (2026). The correlation of students' communication and collaboration skills to work ethics through project-based learning. *Acta Pedagogica Asiana*, 5(1), Article 805.
63. Liwanag, M. J. M., & Lunar, B. C. (2023). College of Arts and Sciences students' levels of problem-solving, collaboration, and adaptability skills: Basis for curriculum enhancement. *Education, Sustainability & Society*, 6(2), 82–86. <https://doi.org/10.26480/ess.02.2023.82.86>
64. Llenares, I. I., & Deocaris, C. C. (2021). Work values of Filipino college students. *British Journal of Guidance & Counselling*, 49(4), 513–523. <https://doi.org/10.1080/03069885.2021.1919473>
65. Loquias, P. A., & Bauyot, M. M. (2024). Straight to work: A case study on the experiences of Filipino K–12 graduates who directly ventured the world of employment. *International Journal of Multidisciplinary Educational Research and Innovation*, 2(3), 100–109. <https://doi.org/10.17613/hpyy-hk16>
66. Lu, D., & Xie, Y. (2024). The application of educational technology to develop problem-solving skills: A systematic review. *Thinking Skills and Creativity*, 51, 101454. <https://doi.org/10.1016/j.tsc.2023.101454>
67. M. Yusop, S. R., Rasul, M. S., Mohammad Yasin, R., & Hashim, H. U. (2023). Identifying and validating vocational skills domains and indicators in classroom assessment practices in TVET. *Sustainability*, 15(6), Article 5195. <https://doi.org/10.3390/su15065195>
68. Ma, Z. (2025). A systematic literature review of human capital and education policy 2014–2024. *Higher Education Research*, 10(6), 231–246. <https://doi.org/10.11648/j.her.20251006.12>
69. Macalintal, R. A. (2026). Effects of work immersion on the skills acquisition of senior high school students in public secondary schools. *International Journal of Sustainability and Advanced Integrated Research*, 3(2), 145–158.
70. Madleňák, R. (2026). Ethical challenges of artificial intelligence in higher education: A four-pillar student-activity framework for institutional governance. *Education Sciences*, 16(4), Article 555.

71. Mahilum, D. Z. E., & Escarlos, G. S. (2025). Sociocultural theory in the 21st-century Philippine secondary classroom: A systematic review of collaborative learning and student achievement. *International Journal of Research and Innovation in Social Science*, 9(3), 666–678. <https://doi.org/10.47772/IJRISS.2025.903SEDU0666>
72. Maristany, D., Hauer, K. E., Leep Hunderfund, A. N., Elks, M. L., Bullock, J. L., Kumbamu, A., & O'Brien, B. C. (2023). The problem and power of professionalism: A critical analysis of medical students' and residents' perspectives and experiences of professionalism. *Academic Medicine*, 98(Suppl 3), S123–S131. <https://doi.org/10.1097/ACM.00000000000005347>
73. Martin, A. J., Collie, R. J., & Nagy, R. P. (2021). Adaptability and high school students' online learning during COVID-19: A job demands-resources perspective. *Frontiers in Psychology*, 12, 702163. <https://doi.org/10.3389/fpsyg.2021.702163>
74. Mercadal, T. (2021). Student engagement. EBSCO Research Starters. EBSCO Publishing. Retrieved from <https://www.ebsco.com>
75. National Association of Colleges and Employers. (2021). Career readiness defined: Professionalism. NACE. Retrieved from <https://www.nacweb.org/career-readiness/competencies/career-readiness-defined/>
76. Neneh, B. N. (2026). Bridging the gap: The influence of employability skills on self-perceived employability and academic satisfaction. *South African Journal of Economic and Management Sciences*, 29(1), a6360. <https://doi.org/10.4102/sajems.v29i1.6360>
77. Occupational Safety and Health Administration. (2021). Recommended practices for safety and health programs. U.S. Department of Labor. Retrieved from <https://www.osha.gov>
78. Öndeş, R. N. (2025). Effects of STEM practices on students' problem-solving skills: A meta-analysis. *International Journal of Education in Mathematics, Science, and Technology*, 13(2), 439–461. <https://doi.org/10.46328/ijemst.4697>
79. Organization for Economic Co-operation and Development (OECD). (2021). Skills outlook 2021: Learning for life. OECD Publishing.
80. Ortizo, K. K. O., & Focbit, B. P. (2026). Employability of technical-vocational-livelihood senior high school graduates: The influence of demographic factors at Passi National High School. *Business Fora: Business and Allied Industries International Journal*, 8(1), 15–28.
81. Paladio, R. M., & Buayan, J. L. (2023). Assessing technical competence and job readiness of Technical-Vocational-Livelihood (TVL) track students in work immersion. *International Journal of Educational Development and Innovation*, 5(1), 112–126.
82. Park, S., & Choi, J. (2021). Exploring the challenges and career satisfaction of work immersion among senior high school learners. *Journal of Educational Research and Practice*, 11(1), 89–104.
83. Pestijo, J. J. (2023). Phases of work immersion and students performance: Basis for a localized internship program. *East Asian Journal of Multidisciplinary Research*, 2(7), 3053–3078.
84. Philippine Statistics Authority. (2024). Highlights of the 2021/2022 Integrated Survey on Labor and Employment: Occupational Safety and Health Practices. Quezon City: PSA.
85. Professional Standards Councils. (2021). Ethics education. Professional Standards Councils. <https://www.professionalstandards.org.au>
86. Raman, A., Thangavelu, A. P., Rajalakshmi, S. A., Priya, M. G., Indu, H., Gayathridevi, S., & Thiyagu, K. (2025). Navigating trends and challenges in educational professionalism. *Frontiers in Education*, 10, 1743218. <https://doi.org/10.3389/feduc.2025.1743218>
87. Rampete, M., Mutua, M. J., & Kigen, E. (2024). Cognitive engagement as correlate of academic achievement among form four students in the south east region, Botswana. *International Journal of Research and Innovation in Social Science*, 8(5), 772–788.
88. Reyes, J., San Juan, R. N., Miñas, F., & Sabado, R. (2025). Evaluating employment outcomes and program relevance: A tracer study of Laguna University's College of Education graduates (2021–2024). *International Journal of Education, Technology and Science*, 5(1). <https://doi.org/10.17613/hpyy-hk16>
89. Roble, D. M. L. (2021). Competency level, employers' expectations and work immersion performance of Senior High School Technical-Vocational and Livelihood (TVL) students. *Asian Journal on Perspectives in Education*, 2(1). <https://doi.org/10.63529/ajpe.v2i1.7657>

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90. Rodrigues, A. L., Cerdeira, L., Machado-Taylor, M. L., & Alves, H. (2021). Technological skills in higher education—Different needs and different uses. *Education Sciences*, 11(7), 326. <https://doi.org/10.3390/educsci11070326>
 91. Saluria, R. A., & Mariño, E. M. (2024). Senior high students' level of satisfaction and performance toward work immersion. *Journal of Interdisciplinary Perspectives*, 2(6), 139–146.
 92. Sari, H., & Çelik, H. (2021). A comprehensive study on university students' perceived employability: Comparative effects of personal and contextual factors. *SAGE Open*, 11(3), 1–17. <https://doi.org/10.1177/21582440211036105>
 93. Schaufeli, W. B. (2021). Engaging leadership: How leaders make employees work with passion and dedication. *Frontiers in Psychology*, 12, 1–12. <https://doi.org/10.3389/fpsyg.2021.713339>
 94. Scheuring, F., & Thompson, J. (2024). Enhancing graduate employability – exploring the influence of experiential simulation learning on life skill development. *Studies in Higher Education*, 50(2), 256–270. <https://doi.org/10.1080/03075079.2024.2334837>
 95. ScienceDirect. (2024). Practical skills and employability: A scoping review of 21st-century competencies in secondary education. *Teaching and Teacher Education*, 132, 104–118.