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The Effect of Growth Mindset on Work Readiness: The Mediating Role of Occupational Health and Safety (OHS) Competence and the Contribution of Seafaring Experience

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ABSTRCT

The urgency of strengthening work safety mindset and occupational health and safety (OHS) competence has become a policy priority for Indonesia's maritime human resource development in facing global competition and STCW (Standards of Training, Certification and Watchkeeping for Seafarers) requirements. This study aims to analyze the effects of growth mindset and OHS competence on work readiness, as well as the role of seafaring experience, as an empirical basis for formulating holistic maritime HR development policies. The research employed a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) with 243 upgrading trainees at Politeknik Ilmu Pelayaran Semarang, measuring growth mindset, work readiness, OHS competence, and seafaring experience constructs. Results show that growth mindset positively and significantly affects work readiness (β=0.225; t=3.659; p<0.001) and OHS competence (β=0.406; t=4.395; p<0.001). OHS competence strongly influences work readiness (β=0.547; t=6.600; p<0.001). Seafaring experience significantly contributes to growth mindset (β=0.542; t=7.255; p<0.001), work readiness (β=0.194; t=3.145; p=0.002), and OHS competence (β=0.528; t=5.881; p<0.001). Mediation analysis confirms the significant role of OHS in the growth mindset→work readiness pathway (indirect effect=0.222; 95% CI [0.131; 0.361]). Policy implications include strategic recommendations: (1) integration of growth mindset modules in national maritime training curricula; (2) strengthening OHS training portion and quality to minimum 20-25% of total training hours; (3) implementation of Recognition of Prior Learning (RPL) systems for seafaring experience validation; (4) development of evidence-based holistic competency assessment standards. This research contributes to transforming Indonesia's maritime HR development policy towards excellence in maritime human capital supporting the world maritime axis vision.

Keywords: maritime policy; human resource development; growth mindset; occupational safety and health competence; maritime vocational education; work readiness; STCW

INTRODUCTION

Indonesia, as the world's largest maritime nation, faces a persistent paradox: despite its abundant maritime resources, it continues to rely on foreign seafarers to meet the labor demands of its domestic shipping industry. The global shipping sector increasingly requires maritime human resources who are not only technically competent but also possess an adaptive mindset, a strong commitment to safety, and adequate operational readiness to navigate highly dynamic and high-risk maritime environments. Data from the International Maritime Organization (IMO) indicate that 80% of maritime incidents stem from human error, highlighting gaps in non-technical competencies including psychological factors and safety culture within maritime education and training systems (Sharma & Kim, 2022; Mori & Manuel, 2024). This phenomenon necessitates a comprehensive and evidence-based reformulation of maritime human resource development policies.

Current Indonesian maritime human resource development policies, governed by various Ministry of Transportation regulations and aligned with the Standards of Training, Certification and Watchkeeping for Seafarers (STCW), tend to emphasize technical and procedural aspects while paying limited attention to psychological dimensions and experiential learning. However, international literature shows that work readiness in the maritime sector is shaped by a complex interplay of technical competence, psychological factors such as growth mindset, occupational health and safety (OHS) competencies, and cumulative seafaring experience acquired throughout one's career (Bjørn et al., 2024; Ghosh & Emad, 2025). The gap between training curricula and industry demands, along with the minimal integration of psychological dimensions and experiential learning in the national training system, presents a strategic challenge that requires empirical evidence to support systematic and measurable policy improvements.

Although the growth-mindset concept developed by Dweck has proven effective in various general education contexts, its application within high-risk and safety-critical maritime vocational education remains limited and requires context-specific empirical validation (Rusland et al., 2020; Belabyad et al., 2025). The causal relationships among mindset, OHS competence, and work readiness in the Indonesian seafaring context have also not been systematically investigated through rigorous research. Seafaring experience, which is an essential asset for competence development and the accumulation of tacit knowledge, is not yet formally recognized within Indonesia's competency assessment system (Recognition of Prior Learning or RPL), unlike best practices in advanced maritime nations such as Norway, Singapore, and the Philippines.

This study aims to address these gaps by empirically examining the effect of growth mindset on work readiness and OHS competence, the mediating role of OHS competence in the relationship between growth mindset and work readiness, and the contribution of seafaring experience to all three constructs. The study was conducted with 243 participants enrolled in an upgrading program at the Politeknik Ilmu Pelayaran (PIP) Semarang, one of Indonesia's leading maritime training institutions that reflects the characteristics of Indonesian seafarers with diverse levels of experience and competence. The selection of PIP Semarang as the research site is based on its reputation as a national center of excellence in maritime education and the demographic representativeness of its students.

This study offers significant contributions in four strategic areas. First, it provides a robust empirical foundation for the development of holistic maritime human resource policies that integrate psychological factors, safety competencies, and practical experience. Second, it elucidates the causal mechanisms and mediation pathways linking psychological factors, safety competence, and work readiness, thereby informing the design of more effective training interventions. Third, it presents concrete and actionable recommendations for improving training curricula, assessment systems, and Recognition of Prior Learning policies within the national maritime training framework. Finally, it supports Indonesia's broader ambition to position itself as a global maritime fulcrum and a leading provider of high-quality seafarers in an increasingly competitive international labor market, aligning with the long-term vision of Indonesia's maritime development agenda for 2045.

INTEGRATING PSYCHOLOGY, SAFETY, AND EXPERIENCE: A SYNTHESIZED FRAMEWORK FOR MARITIME WORKFORCE DEVELOPMENT

Growth mindset is defined as the belief that abilities can be cultivated through intentional effort, learning strategies, and hands-on experience (Campbell et al., 2021; Boylan et al., 2024). Individuals with a growth mindset tend to approach challenges as opportunities for development, interpret feedback as informative rather than threatening, and sustain effort in the face of obstacles (Cherewick et al., 2023; Jeffs et al., 2023). This construct reflects both cognitive components, such as strategic thinking and reflective learning, and motivational aspects, including resilience and valuing of effort. In vocational and technical learning contexts, growth mindset has been shown to facilitate exploratory practice, iterative skill refinement, and adaptation to corrective feedback (Yuan et al., 2024; Taveras et al., 2025). Its influence, however, is shaped by contextual factors like training quality, institutional safety culture, and prior field exposure, resulting in variable effects across different settings (Aven & Ylönen, 2021; Hansen et al., 2025). Conceptualizing growth mindset as a dispositional attribute allows for empirical analysis of how beliefs about human potential translate into competence development and readiness for real-world tasks.

Work readiness represents an individual's overall capacity to enact technical skills, interpersonal abilities, professional attitudes, and problem-solving strategies within actual workplace conditions (Boud et al., 2023; Shapiro et al., 2024). It encompasses procedural knowledge, practical competence, communication, teamwork, responsibility, and work ethic (Billett, 2024; Zhou et al., 2024). Within vocational education systems, work readiness is assessed using performance-based evaluations, observed demonstrations of competence, and self-reported indicators of preparedness for employment (Mseleku, 2024; Jackson & Cook, 2025). Enhancing work readiness supports employability, productivity during early employment, operational safety, and long-term adaptability to technological or organizational changes (Ferns et al., 2025). Key determinants include curriculum relevance, hands-on experience through simulation or onboard training, and the presence of supportive workplace learning environments (Jackson & Connor, 2024; Tan et al., 2025). As such, work readiness

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is inherently multidimensional and requires measurement approaches that integrate technical and non-technical performance indicators.

Occupational Health and Safety (OHS) competence refers to the knowledge, skills, attitudes, and motivations necessary to engage in safe work behaviors, comply with safety protocols, and respond effectively to emergencies (Schulte et al., 2023; Pandey, 2025). It includes procedural understanding of safety standards, adherence to regulations, participation in safety-related activities, and preparedness for hazardous scenarios (Gul, 2020; Møller et al., 2021). Organizational safety climate, quality of training, and leadership practices strongly influence how OHS competence is translated into individual and collective safety behavior (Pourmazaherian & Musonda, 2022; Bentley et al., 2023). Empirical studies consistently show that enhanced safety knowledge and motivation contribute to better compliance, proactive participation, and reductions in accident rates (Afework et al., 2024). In the maritime context, OHS competence also involves adherence to international maritime safety conventions and operational requirements that safeguard both crew and vessels (Sasanawin et al., 2025). This position OHS competence as a key mechanism through which psychological dispositions and experiential learning shape safe performance and overall work readiness.

Seafaring experience encompasses the practical exposure accumulated by seafarers through duration of service at sea, diversity of vessel types, levels of responsibility, and involvement in complex operational tasks (Nasar et al., 2024). These experiences contribute to tacit knowledge and practical expertise that cannot be fully developed through formal instruction or short-term simulations (Şenbursa et al., 2024). Real-world exposure sharpens technical proficiency, reinforces decision-making under pressure, and builds confidence in operational routines (Misas et al., 2024). Participation in emergency drills, handling critical incidents, and execution of high-responsibility tasks further develop situational awareness and crisis-management capabilities (Warren & Gibson, 2024). However, the benefits of experience are not always linear, as variations in task quality, mentorship, and opportunities for structured reflection can amplify or weaken its contribution to competence development (Sellberg et al., 2021; Song et al., 2025). Considering seafaring experience as a moderating construct therefore allows for a nuanced understanding of how experience shapes or alters the effects of psychological disposition and OHS competence on work-readiness outcomes.

Based on this integrated conceptual framework, the following hypotheses were formulated to empirically test the relationships among the constructs:

1. Hypothesis 1 (H1): Growth mindset has a positive effect on trainees' work readiness
2. Hypothesis 2 (H2): Growth mindset has a positive effect on trainees' Occupational Health and Safety (OHS) competence.
3. Hypothesis 3 (H3): Occupational Health and Safety (OHS) competence has a positive effect on trainees' work readiness.
4. Hypothesis 4 (H4): Seafaring experience has a positive effect on trainees' growth mindset.
5. Hypothesis 5 (H5): Seafaring experience has a positive effect on trainees' work readiness.
6. Hypothesis 6 (H6): Seafaring experience has a positive effect on trainees' Occupational Health and Safety (OHS) competence.

Methodological Architecture for Modeling Psychological, Safety, and Experiential Dynamics in Maritime Training

This study adopts a causal-comparative quantitative approach using path analysis within the Partial Least Squares Structural Equation Modeling (PLS-SEM) framework. This methodological choice aligns with the study's objectives to examine both direct and indirect pathways among the constructs, specifically the direct influence of Growth Mindset (GM) on Work Readiness (WR), the mediating role of Occupational Health and Safety competence (OHS), and the moderating role of Seafaring Experience (SE). PLS-SEM is particularly appropriate because it accommodates complex models that include serial mediation, latent constructs measured by multiple indicators, moderate sample sizes, and data conditions that do not meet strict multivariate normality assumptions.

The research instrument consisted of a closed-ended questionnaire using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument measured four latent constructs, each comprising five indicators, for a total of 20 items. Growth Mindset included five indicators adapted from Brez et al. (2020), Richardson et al. (2021), and Ary et al. (2024), capturing incremental beliefs, attitudes toward failure, effort-driven motivation, responses to learning challenges, and beliefs in deliberate practice. Work Readiness

items drew from Wallis (2021), Orr et al. (2023), and Peersia et al. (2024), covering productivity, communication, problem solving, teamwork, and professionalism. OHS competence followed frameworks by Pourmazaherian and Musonda (2022) and Xi et al. (2023), assessing procedural knowledge, compliance, safety motivation, participation, and emergency preparedness. Seafaring Experience indicators were adapted from Tang et al. (2022) and Pauksztat et al. (2022), capturing duration at sea, diversity of vessel types, operational involvement, exposure to complex situations, and responsibility levels. These indicators were operationalized into the questionnaire blueprint shown in Table 1.

The population of the study included 303 participants enrolled in upgrading training at Politeknik Ilmu Pelayaran (PIP) Semarang. The primary sample consisted of 243 trainees representing ANT II–ANT V and ATT II–ATT V competence levels, selected through purposive sampling based on two criteria: active enrollment in the 2025 training cycle and completion of the OHS course. A pilot sample of 60 trainees from a comparable population, not included in the final sample, was used to assess content validity, initial reliability, and item refinement. Respondent demographic characteristics are presented in Table 2 and illustrate the broad diversity of ages, educational backgrounds, competence levels, and lengths of seafaring experience represented in the sample.

Data were collected through an online questionnaire distributed via Google Forms. Respondents received an explanation of the study purpose, assurances of confidentiality, and an informed consent statement. Data collection continued until the target sample of 243 valid responses was reached, after which the dataset was imported into SEM-PLS 3 for analysis.

Pilot testing of the instrument included reliability testing using Cronbach's α, item–total correlations, and screening for problematic items. A reliability threshold of Cronbach's $\alpha \geq 0.70$ was applied. The results indicated strong reliability and convergent validity for all four constructs. Latent Variable 1 produced Cronbach's $\alpha = 0.880$, rho_A = 0.911, Composite Reliability (CR) = 0.916, and Average Variance Extracted (AVE) = 0.693, demonstrating high internal consistency. Latent Variable 2 recorded $\alpha = 0.843$, rho_A = 0.919, CR = 0.901, and AVE = 0.670. Latent Variable 3 showed $\alpha = 0.846$, rho_A = 0.945, CR = 0.907, and AVE = 0.696. Latent Variable 4 exhibited $\alpha = 0.812$, rho_A = 0.880, CR = 0.867, and AVE = 0.580, all within acceptable thresholds. These results confirmed that the constructs possessed adequate reliability and met convergent validity requirements.

Item-level screening based on outer loadings further refined the instrument. Indicators such as GM1, GM2, GM3, GM5, OHS1 through OHS4, SE1 through SE4, and WR1 through

Table 1. Pilot Test Questionnaire.

No.	Variable	Indicator	Code
1	Growth Mindset (Brez et al., 2020; Richardson et al., 2021; Ary et al., 2024)	Belief that abilities can be developed (incremental belief)	GM1
		Attitude toward failure as a learning process	GM2
		Effort motivation and perseverance	GM3
		Response to learning challenges	GM4
		Belief in deliberate practice and planned training	GM5
2	Work Readiness (Wallis, 2021; Orr et al., 2023; Peersia et al., 2024)	Work performance and productivity	WR1
		Professional communication skills	WR2
		Problem-solving and critical thinking ability	WR3
		Teamwork and collaboration skills	WR4
		Professionalism (responsibility, discipline)	WR5
3	Occupational Health & Safety (OHS) (Pourmazaherian & Musonda, 2022; Xi et al., 2023)	Procedural OHS knowledge (technical)	OHS1
		Compliance with safety procedures (safety compliance)	OHS2
		Safety motivation and attitudes	OHS3
		Participation in safety activities (safety participation)	OHS4
		Emergency preparedness and personal protective equipment (PPE) skills	OHS5
4	Seafaring Experience (Tang et al., 2022; Pauksztat et al., 2022)	Duration of seafaring experience	SE1
		Diversity of vessel types served	SE2
		Intensity of operational involvement on board	SE3
		Exposure to complex/emergency situations	SE4
		Level of responsibility held	SE5

Source: Pilot Test Instrument (2025).

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Table 2. Respondents Demography.

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	241	99.17
	Female	2	0.83
Age	< 25 Years old	9	3.70
	26 – 35 Years old	73	30.04
	36 – 45 Years old	106	43.62
	46 – 55 Years old	51	20.98
	> 55 Years old	4	1.66
Education	Elementary	1	0.42
	Junior high school	30	12.35
	Senior high school	164	67.48
	D-I degree	1	0.42
	D-II degree	2	0.82
	D-III degree	36	14.81
	D-IV / S-1 degree	7	2.88
	S-2 degree	2	0.82
Competence level	ANT II	54	22.22
	ANT III	55	22.63
	ANT IV	53	21.81
	ANT V	1	0.42
	ATT II	34	13.99
	ATT III	27	11.11
	ATT IV	12	4.94
	ATT V	3	1.24
	Able/Ratings	4	1.64
Seafaring experience	< 1 year	1	0.42
	2 – 3 years	33	13.58
	4 – 5 years	27	11.11
	6 – 7 years	39	16.05
	> 8 years	143	58.84
	TOTAL	**243**	**100**

Source: Training Officers of PIP Semarang 2025.

WR4 demonstrated strong loadings of 0.70 or higher, supporting their retention. However, three indicators displayed very low loadings below 0.40: OHS5 (0.126), SE5 (0.390), and WR5 (0.240). These items failed to capture sufficient variance and were therefore removed. Indicator GM4 had a moderate loading of 0.530, below the desired threshold, and was also deleted. With the removal of GM4, OHS5, SE5, and WR5, the instrument achieved a refined structure that preserved theoretical integrity while improving psychometric performance.

After the successful pilot refinement, the study proceeded with full-scale data collection and PLS-SEM analysis using the validated set of indicators. The methodological rigor applied in instrument development, pilot evaluation, and analytical selection ensures robust empirical testing of the proposed relationships among psychological disposition, experiential background, safety competence, and work-readiness outcomes within the maritime training context.

EMPIRICAL VALIDATION OF THE MEASUREMENT AND STRUCTURAL MODEL: STRENGTHENING SAFETY MINDSET AND COMPETENCE IN MARITIME HUMAN RESOURCE DEVELOPMENT

The measurement model derived from the main sample (n = 243) demonstrates strong empirical adequacy and provides an essential foundation for policy strategies aimed at strengthening the safety mindset and safety competence of Indonesia's maritime workforce. Outer loadings for all retained indicators fall between 0.720 and 0.922, surpassing the recommended minimum threshold of 0.70. These results confirm robust convergent validity, indicating that each item meaningfully reflects its intended construct and captures substantial variance aligned with the theoretical framework that connects growth mindset, OHS competence, seafaring experience, and work readiness. No additional indicators required removal, and the model retains statistical coherence. Nonetheless, assessment of

discriminant validity through Fornell–Larcker and cross-loading inspection remains a vital prerequisite for ensuring construct distinctiveness before moving to structural evaluation and hypothesis testing.

The structural model offers compelling evidence for the hypothesized relationships shaping maritime human resource development in Indonesia. All core path coefficients are statistically significant ($t > 1.96$), including key relationships such as Growth Mindset → Work Readiness ($t = 3.659$), Growth Mindset → OHS Competence ($t = 4.395$), OHS Competence → Work Readiness ($t = 6.600$), and multiple pathways involving Seafaring Experience as a moderator and predictor. Importantly, the persistence of the direct effect from Growth Mindset to Work Readiness, even after accounting for the indirect effect via OHS competence, indicates partial mediation—underscoring the combined cognitive and technical channels through which mindset influences professional preparedness.

Construct reliability and validity analyses further reinforce the suitability of the measurement instrument. All four latent variables achieve high internal consistency, with Cronbach's alpha values ranging from 0.812 to 0.910 and Composite Reliability values between 0.876 and 0.936. AVE values also exceed the 0.50 threshold, demonstrating solid convergent validity and supporting the

Table 3. Outer Loading Result.

	Growth Mindset	Work Readiness	Occupational Health & Safety (OHS)	Seafaring Experience
GM1	0.901			
GM2	0.901			
GM3	0.878			
GM5	0.867			
WR1		0.905		
WR2		0.889		
WR3		0.880		
WR4		0.866		
OHS1			0.922	
OHS2			0.760	
OHS3			0.887	
OHS4			0.865	
SE1				0.720
SE2				0.761
SE3				0.873
SE4				0.836

Source: SEM-PLS Result Analysis.

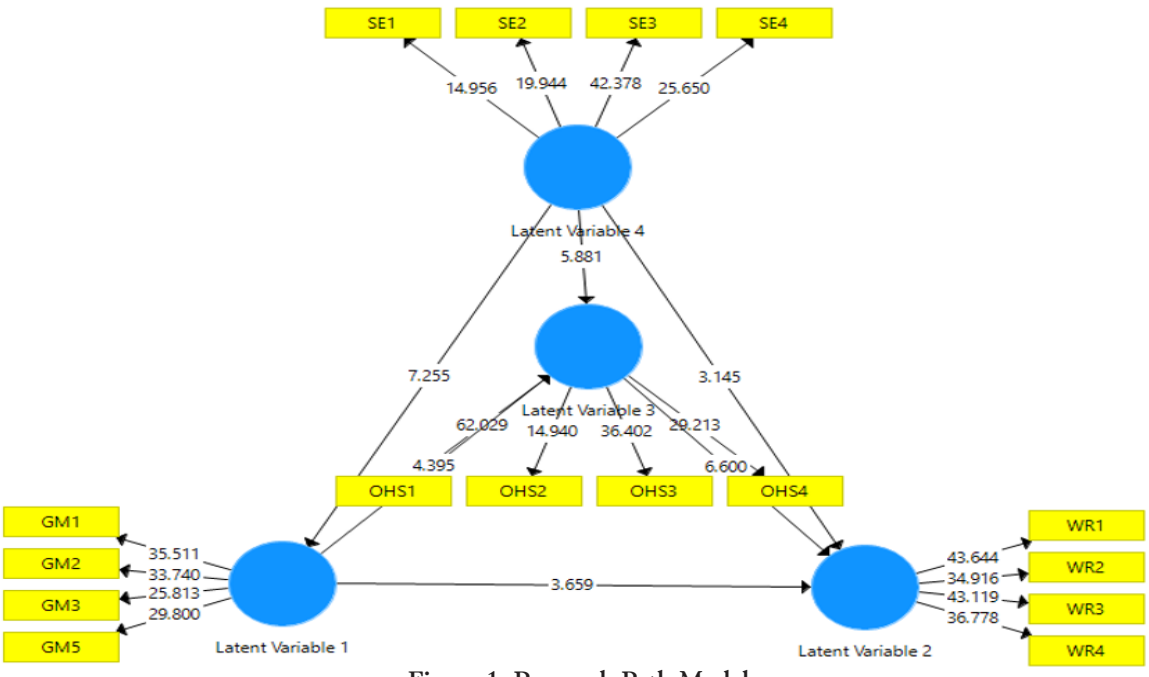


Figure 1. Research Path Model.

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instrument's appropriateness for evaluating safety-related competencies and psychological factors in maritime training (Table 4).

Discriminant validity, assessed via the Fornell–Larcker criterion, shows that the square root of AVE for each construct is greater than its correlations with other constructs, confirming that the model's dimensions Growth Mindset, Work Readiness, OHS Competence, and Seafaring Experience are empirically distinct. Although some correlations are moderately high (e.g., Work Readiness OHS Competence = 0.848), they fall below their respective AVE square roots and therefore pose no threat to discriminant validity. Complementary HTMT assessment is advisable to reinforce this conclusion (Table 5).

The R^2 results indicate that the model provides substantial explanatory power for Work Readiness (R^2 = 0.765) and OHS Competence (R^2 = 0.676), while Growth Mindset demonstrates a more modest level of explained variance (R^2 = 0.294). The minimal difference between R^2 and adjusted R^2 across constructs suggests a parsimonious model that avoids overfitting an important consideration for evidence-based policy development in the maritime sector (Table 6).

Effect size (f^2) analysis shows several large contributions that hold direct implications for competency-based training policy. Notably, Seafaring Experience exerts substantial influence on Growth Mindset (f^2 = 0.417) and OHS Competence (f^2 = 0.606), while OHS Competence contributes strongly to Work Readiness (f^2 = 0.413). By contrast, the pathway from Growth Mindset to Work Readiness yields a small yet meaningful effect (f^2 = 0.112), suggesting that mindset interventions may be more effective when paired with structured OHS skill development (Table 7).

Table 4. Reliability & Validity Result.

	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Growth Mindset	0.910	0.914	0.936	0.787
Work Readiness	0.908	0.911	0.935	0.784
Occupational Health & Safety (OHS)	0.882	0.899	0.919	0.741
Seafaring Experience	0.812	0.836	0.876	0.639

Source: SEM-PLS Result Analysis.

Table 5. Fornell-Larcker Result.

	Growth Mindset	Work Readiness	Occupational Health & Safety (OHS)	Seafaring Experience
Growth Mindset	0.887			
Work Readiness	0.709	0.885		
Occupational Health & Safety (OHS)	0.692	0.848	0.861	
Seafaring Experience	0.542	0.726	0.748	0.800

Source: SEM-PLS Result Analysis.

Table 6. R-Square Result.

	R Square	R Square Adjusted
Growth Mindset	0.294	0.291
Work Readiness	0.765	0.762
Occupational Health & Safety (OHS)	0.676	0.673

Source: SEM-PLS Result Analysis.

Table 7. F-Square Result.

	Growth Mindset	Work Readiness	Occupational Health & Safety (OHS)	Seafaring Experience
Growth Mindset		0.112	0.359	
Work Readiness				
Occupational Health & Safety (OHS)		0.413		
Seafaring Experience	0.417	0.071	0.606	

Source: SEM-PLS Result Analysis.

Hypothesis testing results confirm that all seven hypotheses (H1 through H7) are supported. Growth Mindset predicts both Work Readiness and OHS Competence; OHS Competence predicts Work Readiness; and Seafaring Experience predicts all three constructs while strengthening both the direct and the mediated relationships within the model. Significant indirect effects, such as the pathway in which Growth Mindset influences OHS Competence and subsequently enhances Work Readiness, highlight the essential mediating role of safety competence in shaping workforce readiness. These findings align directly with national policy priorities for maritime human resource development (Table 8).

IMPLICATIONS FOR STRENGTHENING WORK SAFETY MINDSET AND COMPETENCE IN MARITIME HRD

The findings demonstrate that cultivating a growth-oriented safety mindset is a critical lever for enhancing work readiness in Indonesia's maritime sector. Trainees with a growth mindset exhibit stronger adaptability, professional initiative, and readiness for operational demands, affirming existing literature that positions mindset as a catalyst for learning resilience and skill acquisition (Heslin et al., 2020; Shomotova et al., 2024). Maritime training institutions should therefore integrate structured mindset-enhancement interventions such as reflective practice, process-focused feedback, and problem-centered learning modules to strengthen psychological foundations for workplace performance.

The evidence also underscores the role of Growth Mindset in elevating OHS competence. Trainees who believe in their ability to improve are more likely to adopt safe practices, engage in procedural learning, and respond proactively to safety feedback (Teperi et al., 2023). For a sector that prioritizes safety culture, embedding mindset training within safety modules offers a practical strategy for improving compliance and operational safety performance.

OHS competence emerges as a powerful determinant of work readiness, reinforcing the centrality of safety education within maritime capacity-building. Safety knowledge, procedural mastery, and confidence in emergency responses equip trainees with essential readiness for shipboard operations (Vitrano et al., 2024). Policy frameworks should emphasize competency-based safety training, simulation-based assessment, and field practice to enhance real-world preparedness.

Seafaring Experience plays a pivotal developmental role, positively influencing Growth Mindset, OHS competence, and Work Readiness. Exposure to real operations, complex situations, and hierarchical onboard structures provides mastery experiences that strengthen learning beliefs and accelerate skill transfer (Mallam et al., 2022). For policy application, Recognition of Prior Learning (RPL) and experience-based training pathways should be expanded to leverage existing shipboard experience as a developmental asset.

Finally, the strong influence of experience on OHS competence underscores the need for structured experiential learning in maritime training. While hands-on exposure builds practical safety expertise, its benefits require supervision, reflection, and standardization to prevent the entrenchment of unsafe routines. Training institutions should formalize structured mentoring, reflective observation, and validated skill assessments to ensure high-quality learning outcomes.

This study provides empirical evidence that growth mindset, seafaring experience, and occupational health and safety (OHS) competence jointly shape trainees' readiness to enter the maritime workforce. Growth mindset and seafaring experience each exert significant direct effects on both OHS competence and work readiness, while OHS competence serves as a critical competency that enhances trainees' preparedness for real

Table 8. Hypotheses Testing.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
GM – WR	0.225	0.240	0.062	3.659	0.000
GM – OHS	0.406	0.416	0.092	4.395	0.000
OHS - WR	0.547	0.523	0.083	6.600	0.000
SE - GM	0.542	0.548	0.075	7.255	0.000
SE - WR	0.194	0.203	0.062	3.145	0.002
SE - OHS	0.528	0.514	0.090	5.881	0.000

Source: SEM-PLS Result Analysis.

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operational environments. The findings further show that seafaring experience not only strengthens technical and safety capabilities but also contributes to the development of adaptive learning orientations, reinforcing the role of experiential learning in vocational maritime training. Collectively, these results underscore that psychological dispositions, practical field experience, and safety-related competencies form an integrated foundation for developing a high-quality maritime workforce. Strengthening these dimensions is therefore essential for advancing Indonesia's maritime human resource development agenda and improving the nation's competitiveness within the global seafaring labor market.

POLICY IMPLICATIONS

The findings of this study generate several important implications for maritime education, training, and human resource development in Indonesia. First, growth-mindset development should be institutionalized within maritime training programs by incorporating structured psychological-development components such as reflective learning, adaptive feedback, and instructional approaches that cultivate resilience and continuous learning. At the same time, OHS competence must be prioritized as a central policy element by enhancing safety-learning environments, expanding performance-based safety assessments, and aligning training with international safety standards to strengthen both workplace safety and overall work readiness. The results also underscore the need to formalize mechanisms for recognizing seafaring experience within certification systems, particularly through improved Recognition of Prior Learning (RPL) processes that account for the quantity and quality of field experience, consistent with global best practices. In addition, curriculum reforms should integrate psychological, safety, and experiential dimensions such as simulation-based training, mentorship, and reflective practice to ensure closer alignment between training outcomes and industry needs. Collectively, strengthening growth mindset, OHS competence, and experience based learning will enhance the competitiveness of Indonesia's maritime workforce and support national aspirations to become a global maritime hub and a leading supplier of highly qualified seafarers.

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AUTHOR CONTRIBUTION STATEMENT

Adhi Pratistha Silen, as the principal author, was responsible for conceptualization, research design, data collection, statistical analysis, drafting the final manuscript, and correspondence.

REFERENCE

Afework, A., Tamene, A., & Tafa, A. (2024). Compliance with Standard Occupational Health and Safety Measures and Associated Factors Among Small-Scale Metal Industry Workers in Central Ethiopia. *Risk Management and Healthcare Policy*, *1594*. https://doi.org/10.2147/RMHP.S455967.

Ary, L., Djatmika, D., & Nurkamto, J. (2024). Paving the Road to Writing Success : Self-efficacy , Metacognition , a Growth Mindset , and Academic Writing Performance among Indonesian EFL Students. *PASAA Journal*, *68*(June), 165–202.

Aven, T., & Ylönen, M. (2021). How the risk science can help us establish a good safety culture. *Journal of Risk Research*, *24*(11), 1349–1367. https://doi.org/10.1080/13669877.2020.1871056.

Belabyad, M., Kontovas, C., Pyne, R., Chang, C., Kontovas, C., & Pyne, R. (2025). Skills and competencies for operating maritime autonomous surface ships (MASS): a systematic review and bibliometric analysis. *Maritime Policy & Management*, *00*(00), 1–26. https://doi.org/10.1080/03088839.2025.2475177.

Benson, C., Obasi, I. C., & Akinwande, D. V. (2024). The impact of interventions on health , safety and environment in the process industry. *Heliyon*, *10*(1), e23604. https://doi.org/10.1016/j.heliyon.2023.e23604.

Bentley, T., Onnis, L., Vassiley, A., Farr-wharton, B., Andrew, C., Neill, S. O., Neto, A. D. A., Huron, V., & Green, N. (2023). A systematic review of literature on occupational health and safety interventions for older workers. *Ergonomics*, *66*(12), 1968–1983. https://doi.org/10.1080/00140139.2023.2176550.

Biermann-teuscher, D., Thissen, L., Horstman, K., & Meershoek, A. (2024). Safety : A collective and embedded competency . An ethnographic study of safety practices at an industrial workplace in the Netherlands. *Journal of Safety Research*, *88*(July 2023), 93–102. https://doi.org/10.1016/j.jsr.2023.10.012.

Billett, S. (2024). Studies in Continuing Education Constituting integration in work-integrated education and learning. *Studies in Continuing Education*, 1–18. https://doi.org/10.1080/0158037X.2024.2363262.

Bjørn, P., Han, M. L., Parezanovic, A., & Larsen, P. (2024). Human – Computer Interaction Social fidelity in cooperative virtual reality maritime training. *Human–Computer Interaction*, *00*(00), 1–25. https://doi.org/10.1080/07370024.2024.2372716.

Blankesteijn, M. L. M. L., Houtkamp, J. J., & Bossink, B. B. A. G. (2024). Towards transformative experiential learning in science- and technology-based entrepreneurship education for sustainable technological innovation. *Journal of Innovation & Knowledge*, *9*(3), 100544. https://doi.org/10.1016/j.jik.2024.100544.

Boud, D., Costley, C., Cranfield, S., Desai, J., Nikolou-, E., Nottingham, P., & Wilson, D. (2023). The pivotal role of student assessment in work-integrated learning. *Higher Education Research & Development*, *42*(6), 1323–1337. https://doi.org/10.1080/07294360.2022.2152981.

Boylan, F., Barblett, L., & Knaus, M. (2024). I think I can , I think I can ' t : Design principles for fostering a growth mindset in the early years. *Journal of Early Childhood Teacher Education*, *45*(1), 96–117. https://doi.org/10.1080/10901027.2023.2251924.

Brez, C., Hampton, E. M., Behrendt, L., Brown, L., & Powers, J. (2020). Failure to Replicate : Testing a Growth Mindset Intervention for College Student Success. *Basic and Applied Social Psychology*, *0*(0), 1–9. https://doi.org/10.1080/01973533.2020.1806845.

Campbell, A. L., Direito, I., & Mokhithi, M. (2021). Developing growth mindsets in engineering students : a systematic literature review of interventions. *European Journal of Engineering Education*, *46*(4), 503–527. https://doi.org/10.1080/03043797.2021.1903835.

Capron, I., & Audrin, C. (2021). Improving self-efficacy and creative self-efficacy to foster creativity and learning in schools. *Thinking Skills and Creativity*, *42*(July), 100966. https://doi.org/10.1016/j.tsc.2021.100966.

Chan, J. P., Pazouki, K., & Norman, R. A. (2023). An experimental study into the fault recognition of onboard systems by navigational officers. *Journal of Marine Engineering & Technology ISSN:*, *22*(2), 101–110. https://doi.org/10.1080/20464177.2022.2143312.

Cherewick, M., Hipp, E., Njau, P., & Dahl, R. E. (2023). Growth mindset, persistence, and self-efficacy in early adolescents: Associations with depression, anxiety, and externalising behaviours. *Global Public Health*, *18*(1). https://doi.org/10.1080/17441692.2023.2213300.

Choi, J., Lee, S., & Kim, S. (2022). Improving the current regulatory issues concerning training ships for maritime institutions_ The South Korean case. *The Asian Journal of Shipping and Logistics*, *38*(3), 125–134. https://doi.org/10.1016/j.ajsl.2022.02.001.

Daff, L., Tame, C., & Sands, J. (2024). A course design approach that encourages reflective practice habits. *The International Journal of Management Education*, *22*(2), 100990. https://doi.org/10.1016/j.ijme.2024.100990.

Daly, R., Spooner, M., Offiah, G., Flood, K., & Illing, J. (2024). Protocol for a realist review of case-based learning in undergraduate medical education. *International Journal of Educational Research Open*, *7*(May), 100366. https://doi.org/10.1016/j.ijedro.2024.100366.

Evangelista, A., Manghisi, V. M., Giglio, V. De, Mariconte, R., Giliberti, C., & Uva, A. E. (2025). From knowledge to action : Assessing the effectiveness of immersive virtual reality training on safety behaviors in confined spaces using the Kirkpatrick model. *Safety Science*, *181*(September 2024).

Ferns, S. J., Zegwaard, K. E., Pretti, T. J., & Rowe, A. D. (2025). Defining and designing work-integrated learning curriculum. *Higher Education Research & Development*, *44*(2), 371–385. https://doi.org/10.1080/07294360.2024.2399072.

Ghahramani, A., Ebrahimi, M., & Hajaghazadeh, M. (2023). Development and psychometric evaluation of an occupational health and safety performance tool for manufacturing companies. *Heliyon*, *9*(6), e17343. https://doi.org/10.1016/j.heliyon.2023.e17343.

Ghosh, S., & Emad, G. R. (2025). Identifying challenges in designing and implementing a skills and competency framework for future seafarers : a systematic literature review. *Australian Journal of Maritime & Ocean Affairs*, *6503*, 540–553. https://doi.org/10.1080/18366503.2024.2356365.

Ghosh, S., Emad, G. R., & Ravi, A. (2024). Investigating the characteristics of skills and competency frameworks through a systematic literature review : a feasibility study to revise the STCW Code for seafarer training. *Australian Journal of Maritime & Ocean Affairs*, *6503*, 1–17. https://doi.org/10.1080/18366503.2024.2374606.

Grytnes, R., Tutt, D. E., Peter, L., & Andersen, S. (2020). Developing safety cooperation in construction : between facilitating independence and tightening the grip. *Construction Management and Economics*, *38*(11), 977–992. https://doi.org/10.1080/01446193.2020.1726978.

Gul, M. (2020). A fuzzy-based occupational health and safety risk assessment framework and a case study in an international port authority. *Journal of Marine Engineering & Technology*, *19*(4), 161–175. https://doi.org/10.1080/20464177.2019.1670994.

Hampel, N., Sassenberg, K., Scholl, A., Ditrich, L., Hampel, N., & Sassenberg, K. (2024). Enactive mastery experience improves attitudes towards digital technology via self-efficacy – a pre-registered quasi-experiment. *Behaviour & Information Technology ISSN:*, *43*(2),

p-ISSN: 2089-6980
e-ISSN: 2527-3280

298–311. https://doi.org/10.1080/0144929X.2022.2162436.

Hansen, S., Chen, J., Erik, N., Lyngdorf, R., Bertel, L. B., & Du, X. (2025). Supporting psychological safety in teamwork – in which ways do engineering students feel safe doing creativity – focused interventions in a PBL environment ? *European Journal of Engineering Education*, *3797*, 1–20. https://doi.org/10.1080/03043797.2025.2522278.

Haque, Z., Kjeldsberg, F., Kim, T., & Bustgaard, M. (2025). Prediction accuracy in maritime simulator training performance assessment with varying data frequency. *Array*, *27*(July), 100489. https://doi.org/10.1016/j.array.2025.100489.

Heslin, P. A., Keating, L. A., & Ashford, S. J. (2020). How being in learning mode may enable a sustainable career across the lifespan. *Journal of Vocational Behavior*, *117*(June 2019), 103324. https://doi.org/10.1016/j.jvb.2019.103324.

Ho, W. W. Y., & Lau, Y. H. Y. (2025). Role of reflective practice and metacognitive awareness in the relationship between experiential learning and positive mirror effects : A serial mediation model. *Teaching and Teacher Education*, *157*(January), 104947. https://doi.org/10.1016/j.tate.2025.104947.

Högstedt, D., Eriksson, E., Jansson, I., & Engström, M. (2024). Self-rated professional competence and well-being at work after obtaining a Swedish nursing license : A longitudinal mixed-methods study of internationally and domestically educated nurses. *International Journal of Nursing Studies*, *157*, 104812. https://doi.org/10.1016/j.ijnurstu.2024.104812.

Ibrion, M., Paltrinieri, N., & Nejad, A. R. (2021). Learning from failures in cruise ship industry : The blackout of Viking Sky in Hustadvika , Norway. *Engineering Failure Analysis*, *125*(November 2020), 105355. https://doi.org/10.1016/j.engfailanal.2021.105355.

Jackson, D., & Connor, M. D. O. (2024). Curriculum approaches to strengthening student employability and improving graduate outcomes in the STM disciplines. *International Journal of Science Education*, *0693*, 1–24. https://doi.org/10.1080/09500693.2024.2419393.

Jackson, D., & Cook, E. J. (2025). Studies in Higher Education Work-integrated learning in the humanities , arts and social sciences : where to from here ? *Studies in Higher Education*, *50*(9), 2048–2067. https://doi.org/10.1080/03075079.2024.2409879.

Jeffs, C., Nelson, N., Grant, K. A., Nowell, L., Paris, B., & Viceer, N. (2023). Feedback for teaching development : moving from a fixed to growth mindset. *Professional Development in Education*, *49*(5), 842–855. https://doi.org/10.1080/19415257.2021.1876149.

Keykhaei, M., Samany, N. N., & Jelokhani-, M. (2024). Geo-spatial Information Science A situation-aware emergency evacuation (SAEE) model using multi-agent-based simulation for crisis management after earthquake warning. *Geo-Spatial Information Science*, *27*(6), 1800–1823. https://doi.org/10.1080/10095020.2023.2270017.

Koh, L. Y., Li, X., Wang, X., & Yuen, K. F. (2024). Technology Analysis & Strategic Management Key knowledge domains for maritime shipping executives in the digital era : a knowledge-based view approach. *Technology Analysis & Strategic Management*, *36*(7), 1646–1663. https://doi.org/10.1080/09537325.2022.2106841.

Korseberg, L., & Stalheim, O. R. (2024). Professional Development in Education The role of digital technology in facilitating epistemic fluency in professional education. *Professional Development in Education*, *00*(00), 1–17. https://doi.org/10.1080/19415257.2024.2421489.

Kristin, H., Kaldheim, A., Fossum, M., Munday, J., Creutzfeldt, J., & Sletteb, Å. (2021). Use of interprofessional simulation-based learning to develop perioperative nursing students ' self-efficacy in responding to acute situations. *International Journal of Educational Research*, *109*(March). https://doi.org/10.1016/j.ijer.2021.101801.

Kwasi, D., Asante, S., Owusu-amponsah, N. Y., Waller, Z., Rasouli, V., Ullrich, G., Snyder, P., & Corbin, N. (2023). Development of a generative voluntary safety reporting culture (GVSRC) model for the Gulf of Mexico (GOM) oil and gas (O & G) sector using attributes of the aviation safety action program (ASAP). *Safety Science*, *161*(February).

Lawton, V., Pacey, V., Chan, C., Jones, T. M., & Dean, C. M. (2025). Determining the domains of work readiness in physiotherapy : Australian graduate and employer perspectives. *European Journal of Physiotherapy*, *27*(1), 10–19. https://doi.org/10.1080/21679169.2024.2317134.

Mallam, S. C., Marit, A., & Aas, J. (2022). Reintroducing the sharp-end operator to organizational learning : How accident reports are used by maritime officers. *Safety Science*, *147*(February 2021), 105632. https://doi.org/10.1016/j.ssci.2021.105632.

Marschall, G. (2023). Teacher self-ef fi cacy sources during secondary mathematics initial teacher education. *Teaching and Teacher Education*, *132*, 104203. https://doi.org/10.1016/j.tate.2023.104203.

Misas, J. D. P., Hopcraft, R., Tam, K., & Jones, K. (2024). Future of maritime autonomy : cybersecurity , trust and mariner ' s situational awareness. *Journal of Marine Engineering & Technology ISSN:*, *4177*. https://doi.org/10.1080/20464177.2024.2330176.

Møller, J. L., Kines, P., Dyreborg, J., Andersen, L. L., & Jeppe, Z. N. (2021). The competences of

successful safety and health coordinators in construction projects. *Construction Management and Economics*, *39*(3), 199–211. https://doi.org/10.1080/01446193.2020.1818800.

Mona, H., & Lau, A. (2023). Being ready for digital transformation : How to enhance employees ' intentional digital readiness. *Computers in Human Behavior Reports*, *11*(May). https://doi.org/10.1016/j.chbr.2023.100314.

Mori, Y., & Manuel, M. (2024). An exploratory study of approaches to onboard training in different countries. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, *8*(3). https://doi.org/10.1080/25725084.2024.2386221.

Mseleku, Z. (2024). Transitioning from higher education to the labour market : the role of graduate internship on youth graduate employability. *Cogent Education*, *11*(1). https://doi.org/10.1080/2331186X.2024.2428069.

Nasar, W., Gundersen, O. E., Torres, R. da S., & Karlsen, A. (2024). Knowledge Graphs to Accumulate and Convey Knowledge from Past Experiences in Search and Rescue Planning and Resource Allocation. *Applied Artificial Intelligence*, *38*(1). https://doi.org/10.1080/08839514.2024.2434296.

Nielsen, K., Ng, K., Vignoli, M., Lorente, L., & Peiró, J. M. (2023). A mixed methods study of the training transfer and outcomes of safety training for low-skilled workers in construction. *Work & Stress*, *37*(2), 127–147. https://doi.org/10.1080/02678373.2022.2086646.

Nyström, S., & Ahn, S. (2025). Vocational students ' experiences and reflections on simulation training – what differences enable or hinder learning ? *Journal of Vocational Education & Training*, *00*(00), 1–18. https://doi.org/10.1080/13636820.2025.2449659.

Onakpojeruo, D., Jeong, B., & Park, C. (2023). Mental wellbeing ; Human reliability assessment of seafarers during the COVID-19 era. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, *7*(1). https://doi.org/10.1080/25725084.2023.2184604.

Orr, P., Forsyth, L., Caballero, C., Rosenberg, C., & Walker, A. (2023). A systematic review of Australian higher education students ' and graduates ' work readiness. *Higher Education Research & Development*, *42*(7), 1714–1731. https://doi.org/10.1080/07294360.2023.2192465.

Pacheco, P. O., Coello-montecel, D., & Andrei, D. M. (2023). Validation of the Spanish version of the Neal , Griffin and Hart safety behavior scale. *International Journal of Occupational Safety and Ergonomics*, *29*(4), 1402–1415. https://doi.org/10.1080/10803548.2022.2131277.

Pandey, B. R. (2025). Rethinking occupational health and safety principles — a systems perspective. *Journal of the Royal Society of New Zealand*, *6758*. https://doi.org/10.1080/03036758.2024.2333555.

Pauksztat, B., Grech, M. R., & Kitada, M. (2022). The impact of the COVID-19 pandemic on seafarers ' mental health and chronic fatigue : Beneficial effects of onboard peer support , external support and Internet access. *Marine Policy*, *137*(April 2021), 104942. https://doi.org/10.1016/j.marpol.2021.104942.

Peersia, K., Rappa, N. A., & Perry, L. B. (2024). Work readiness : definitions and conceptualisations. *Higher Education Research & Development*, *43*(8), 1830–1845. https://doi.org/10.1080/07294360.2024.2366322.

Phanphichit, T., & Bartusevičienė, I. (2024). Perspectives of stakeholders on onboard training : A thematic analysis of qualitative interviews. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, *8*(4). https://doi.org/10.1080/25725084.2024.2408698.

Pianda, D., Hilmiana, H., Widianto, S., & Sartika, D. (2024). The impact of internship experience on the employability of vocational students : a bibliometric and systematic review. *Cogent Business & Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2386465.

Pourmazaherian, M., & Musonda, I. (2022). Worker competence and safety performance the mediation role of safety orientation in construction industry. *Cogent Public Health*, *9*(1). https://doi.org/10.1080/27707571.2022.2145702.

Pribadi, A. P., Rahman, Y. M. R., & Silalahi, C. D. A. B. (2024). Analysis of the effectiveness and user experience of employing virtual reality to enhance the efficacy of occupational safety and health learning for electrical workers and graduate students. *Heliyon*, *10*(15), e34918. https://doi.org/10.1016/j.heliyon.2024.e34918.

Richardson, D., Kinnear, B., Hauer, K. E., Turner, T. L., Warm, J., Hall, A. K., Ross, S., Thoma, B., & Melle, E. Van. (2021). Growth mindset in competency-based medical education. *Medical Teacher*, *43*(7), 751–757. https://doi.org/10.1080/0142159X.2021.1928036.

Rusland, S. L., Jaafar, N. I., & Sumintono, B. (2020). Evaluating knowledge creation processes in the Royal Malaysian Navy (RMN) fleet : Personnel conceptualization , participation and differences Evaluating knowledge creation processes in the Royal Malaysian Navy (RMN) fleet : Personnel conceptualization. *Cogent Business & Management*, *07*(01). https://doi.org/10.1080/23311975.2020.1785106.

Sadoughi, M., & Hejazi, S. Y. (2024). Growth language mindset and willingness to communicate : Contributions of linguistic risk taking and learning experience. *Acta Psychologica*, *248*(March), 104367. https://doi.org/10.1016/j.actpsy.2024.104367.

p-ISSN: 2089-6980
e-ISSN: 2527-3280

Sasanawin, P., Surawattanasakul, V., Prasan, S., & Banomyong, K. (2025). The Differences in Necessary Competencies , Skills , and Performance Abilities Among Thai Board-Certified Occupational Medicine Physicians and Basic Occupational Medicine Certified Physicians. *Journal of Multidisciplinary Healthcare*, *2390*. https://doi.org/10.2147/JMDH.S509530.

Schulte, P. A., Jacklitsch, B. L., Bhattacharya, A., Chun, H., Edwards, N., Flynn, M. A., Guerin, R., Hodson, L., Lincoln, J. M., Macmahon, K. L., Siven, J., & Vietas, J. (2023). Updated assessment of occupational safety and health hazards of climate change. *Journal of Occupational and Environmental Hygiene*, *20*(5–6), 183–206. https://doi.org/10.1080/15459624.2023.2205468.

Sellberg, C., Lindwall, O., & Rystedt, H. (2021). The demonstration of reflection-in-action in maritime training. *Reflective Practice*, *22*(3), 319–330. https://doi.org/10.1080/14623943.2021.1879771.

Şenbursa, N., Şenbursa, G., Sİvrİ, F., Uğurlu, Ö., & Çelİk, B. (2024). Understanding seafarers' physical and mental health. *Journal of International Maritime Safety, Environmental Affairs, and Shipping*, *8*(4). https://doi.org/10.1080/25725084.2024.2421708.

Seo, H. J., & Hong, A. J. (2023). Text mining analysis on research trends in workplace safety engagement education Text mining analysis on research trends in workplace safety engagement education. *Cogent Education*, *10*(1). https://doi.org/10.1080/2331186X.2023.2197665.

Setthakorn, K. P. (2023). What drives performance while being far away from home ? An examination of leader-member exchange (LMX) ambivalence , job embeddedness , trust , and perceived organisation support of Thai seafarers. *Cogent Business & Management*, *10*(3). https://doi.org/10.1080/23311975.2023.2285083.

Shapiro, E., Piotrowska, B., & Sime, P. J. (2024). Work readiness of student nurses voluntarily supporting NHS during COVID-19 pandemic : a mixed methods investigation into students ' experiences. *Contemporary Nurse*, *60*(6), 683–696. https://doi.org/10.1080/10376178.2024.2404843.

Sharma, A., & Kim, T. (2022). Exploring technical and non-technical competencies of navigators for autonomous shipping. *Maritime Policy & Management*, *49*(6), 831–849. https://doi.org/10.1080/03088839.2021.1914874.

Shomotova, A., Karabchuk, T., & Ibrahim, A. (2024). Leadership potential and self-perceived employability of undergraduate students in the United Arab Emirates. *International Journal of Educational Research Open*, *7*(December 2023), 100335. https://doi.org/10.1016/j.ijedro.2024.100335.

Song, R., Papadimitriou, E., Negenborn, R. R., & Van, P. (2025). Safety and efficiency of human-MASS interactions : towards an integrated framework. *Journal of Marine Engineering & Technology*, *24*(3), 159–178. https://doi.org/10.1080/20464177.2024.2414959.

Sousa, B. J., & Clark, A. M. (2025). Growth mindsets in academics and academia : a review of influence and interventions. *Journal of Higher Education Policy and Management*, *47*(1), 38–56. https://doi.org/10.1080/1360080X.2024.2384003.

Strojny, P., & Natalia Duzmanska-Misiarczyk. (2023). Measuring the effectiveness of virtual training : A systematic review. *Computers & Education: X Reality*, *2*(July 2022). https://doi.org/10.1016/j.cexr.2022.100006.

Summerscales, J. (2024). Harvesting tacit knowledge for composites workforce development. *Composites Part A*, *185*(June), 108357. https://doi.org/10.1016/j.compositesa.2024.108357.

Sung, T., & Hsu, H. (2025). Improving Critical Care Teamwork : Simulation- Based Interprofessional Training for Enhanced Communication and Safety. *Journal of Multidisciplinary Healthcare*, *2390*, 355–367. https://doi.org/10.2147/JMDH.S500890.

Suputra, I. N., Basuki, A., Gunawan, A., & Syafruddin, A. B. (2024). Does work-integrated curriculum transformation affect learning experience , student competencies , and learning interactions ? The role of teaching strategy moderation. *Cogent Education*, *11*(1). https://doi.org/10.1080/2331186X.2024.2375676.

Tan, L., Ratanaolarn, T., & Sriwisathiyakun, K. (2025). Project-based blended learning for vocational education : Enhancing digital marketing competencies and team spirit. *Cogent Education*, *12*(1). https://doi.org/10.1080/2331186X.2025.2498092.

Tang, L., Abila, S., Kitada, M., Malecosio, S., & Krista, K. (2022). Seafarers ' mental health during the COVID-19 pandemic : An examination of current supportive measures and their perceived effectiveness. *Marine Policy*, *145*(April), 105276. https://doi.org/10.1016/j.marpol.2022.105276.

Taveras, C. M., Claro, S., Santelices, M. V., & Trzesniewski, K. (2025). Exploring teacher growth mindset measurement : an analytical synthesis. *Cogent Education*, *12*(1). https://doi.org/10.1080/2331186X.2025.2536360.

Teperi, A., Paajanen, T., Asikainen, I., & Lantto, E. (2023). From must to mindset : Outcomes of human factor practices in aviation and railway companies. *Safety Science*, *158*(September 2022), 105968. https://doi.org/10.1016/j.ssci.2022.105968.

Thanh, N. H., & Anh, N. N. (2023). The relationship between effective personality and occupational health of lecturers : An empirical assessment in vietnam. *Heliyon*, *9*(2), e13231.

https://doi.org/10.1016/j.heliyon.2023.e13231.

Thi, M., Ta, D., Kim, T., & Gausdal, A. H. (2022). Leadership styles and safety performance in high- risk industries : a systematic review. *Safety and Reliability*, *41*(1), 10–44. https://doi.org/10.1080/09617353.2022.2035627.

Turner, S., Harder, N., Martin, D., & Gillman, L. (2023). Psychological safety in simulation : Perspectives of nursing students and faculty. *Nurse Education Today*, *122*(July 2022), 105712. https://doi.org/10.1016/j.nedt.2023.105712.

Vitrano, G., Urso, D., Micheli, G. J. L., Guglielmi, A., Merich, D. De, & Pellicci, M. (2024). Enabling Effective Implementation of Occupational Safety and Health Interventions. *Safety and Health at Work*, *15*(2), 213–219. https://doi.org/10.1016/j.shaw.2024.04.003.

Vocht, F. De, Garay, S., Reed, H., Small, G., Barrett, A., Murphy, S., & Morgan, K. (2024). Impacts of the Mindset Teams Programme on Teacher Outcomes and Pupil Educational Attainment : Secondary Data Analysis. *Journal of Research on Educational Effectiveness*, *0*(0), 1–17. https://doi.org/10.1080/19345747.2024.2403989.

Walker, A., Nagarajan, S. V., Orr, P., Elphinston, R., Dunne, M., & Mcallister, L. (2024). Allied health work readiness capabilities : a qualitative comparison of graduates , supervisors , and managers ' perspectives. *Journal of Interprofessional Care*, *38*(6), 1026–1034. https://doi.org/10.1080/13561820.2024.2406476.

Wallis, R. (2021). Career readiness : developing graduate employability capitals in aspiring media workers. *Journal of Education and Work*, *34*(4), 533–543. https://doi.org/10.1080/13639080.2021.1931666.

Warren, A., & Gibson, C. (2024). The Place-based Work of Global Circulation : Maritime Workers , Collaboration , and Labor Agency at the Seaport. *Economic Geography*, *0095*. https://doi.org/10.1080/00130095.2023.2263127.

Weijzen, S. M. G., Onck, C., Wals, A. E., Tassone, V. C., & Kuijer-siebelink, W. (2024). Vocational education for a sustainable future : Unveiling the collaborative learning narratives to make space for learning. *Journal of Vocational Education & Training*, *76*(2), 331–353. https://doi.org/10.1080/13636820.2023.2270468.

Wingen, S., Graczyk, T., Wingen, T., & Dohle, S. (2024). Mindsets at Work : Understanding the Positive Impact of Growth Mindsets on Workplace Coaching. *Basic and Applied Social Psychology*, *46*(5), 381–397. https://doi.org/10.1080/01973533.2024.2382718.

Xi, Y., Hu, S., Yang, Z., Fu, S., & Weng, J. (2023). Analysis of safety climate effect on individual safety consciousness creation and safety behaviour improvement in shipping operations. *Maritime Policy and Management*, *50*(7), 941–956. https://doi.org/10.1080/03088839.2022.2059718.

Yan, Z., King, R. B., & Haw, J. Y. (2021). Formative assessment , growth mindset , and achievement : examining their relations in the East and the West. *Assessment in Education: Principles, Policy & Practice*, *28*(5–6), 676–702. https://doi.org/10.1080/0969594X.2021.1988510.

Yuan, R., Peng, W., & Jiang, J. (2024). Relationship Between Growth Mindset and Self-Control Amongst Chinese Primary School Students : A Longitudinal Study. *Psychology Research and Behavior Management*, *1578*. https://doi.org/10.2147/PRBM.S468490.

Zhan, S., Chapman, E., Valentine, A., & Male, S. (2025). Enhancing the measurement of employability in engineering : insights from a systematic literature review. *European Journal of Engineering Education*, *3797*(May), 1–20. https://doi.org/10.1080/03043797.2025.2502473.

Zhou, N., Tigelaar, D. E. H., & Admiraal, W. (2024). Factors influencing the impact of work placement on vocational teachers ' school practice. *Educational Studies*, *50*(6), 1260–1279. https://doi.org/10.1080/03055698.2022.2069462.

Afework, A., Tamene, A., & Tafa, A. (2024). Compliance with Standard Occupational Health and Safety Measures and Associated Factors Among Small-Scale Metal Industry Workers in Central Ethiopia. Risk Management and Healthcare Policy, 1594. https://doi.org/10.2147/RMHP.S455967.

Ary, L., Djatmika, D., & Nurkamto, J. (2024). Paving the Road to Writing Success : Self-efficacy , Metacognition , a Growth Mindset , and Academic Writing Performance among Indonesian EFL Students. PASAA Journal, 68(June), 165–202.

Aven, T., & Ylönen, M. (2021). How the risk science can help us establish a good safety culture. Journal of Risk Research, 24(11), 1349–1367. https://doi.org/10.1080/13669877.2020.1871056.

Belabyad, M., Kontovas, C., Pyne, R., Chang, C., Kontovas, C., & Pyne, R. (2025). Skills and competencies for operating maritime autonomous surface ships (MASS): a systematic review and bibliometric analysis. Maritime Policy & Management, 00(00), 1–26. https://doi.org/10.1080/03088839.2025.2475177.

Benson, C., Obasi, I. C., & Akinwande, D. V. (2024). The impact of interventions on health , safety and environment in the process industry. Heliyon, 10(1), e23604. https://doi.org/10.1016/j.heliyon.2023.e23604.

Bentley, T., Onnis, L., Vassiley, A., Farr-wharton, B., Andrew, C., Neill, S. O., Neto, A. D. A., Huron, V., & Green, N. (2023). A systematic review of literature on occupational health and safety interventions for older workers. Ergonomics,

p-ISSN: 2089-6980
e-ISSN: 2527-3280

66(12), 1968–1983. https://doi.org/10.1080/00140139.2023.2176550.

Biermann-teuscher, D., Thissen, L., Horstman, K., & Meershoek, A. (2024). Safety : A collective and embedded competency . An ethnographic study of safety practices at an industrial workplace in the Netherlands. Journal of Safety Research, 88(July 2023), 93–102. https://doi.org/10.1016/j.jsr.2023.10.012.

Billett, S. (2024). Studies in Continuing Education Constituting integration in work-integrated education and learning. Studies in Continuing Education, 1–18. https://doi.org/10.1080/0158037X.2024.2363262.

Bjørn, P., Han, M. L., Parezanovic, A., & Larsen, P. (2024). Human – Computer Interaction Social fidelity in cooperative virtual reality maritime training. Human–Computer Interaction, 00(00), 1–25. https://doi.org/10.1080/07370024.2024.2372716.

Blankesteijn, M. L. M. L., Houtkamp, J. J., & Bossink, B. B. A. G. (2024). Towards transformative experiential learning in science- and technology-based entrepreneurship education for sustainable technological innovation. Journal of Innovation & Knowledge, 9(3), 100544. https://doi.org/10.1016/j.jik.2024.100544.

Boud, D., Costley, C., Cranfield, S., Desai, J., Nikolou-, E., Nottingham, P., & Wilson, D. (2023). The pivotal role of student assessment in work-integrated learning. Higher Education Research & Development, 42(6), 1323–1337. https://doi.org/10.1080/07294360.2022.2152981.

Boylan, F., Barblett, L., & Knaus, M. (2024). I think I can , I think I can ' t : Design principles for fostering a growth mindset in the early years. Journal of Early Childhood Teacher Education, 45(1), 96–117. https://doi.org/10.1080/10901027.2023.2251924.

Brez, C., Hampton, E. M., Behrendt, L., Brown, L., & Powers, J. (2020). Failure to Replicate : Testing a Growth Mindset Intervention for College Student Success. Basic and Applied Social Psychology, 0(0), 1–9. https://doi.org/10.1080/01973533.2020.1806845.

Campbell, A. L., Direito, I., & Mokhithi, M. (2021). Developing growth mindsets in engineering students : a systematic literature review of interventions. European Journal of Engineering Education, 46(4), 503–527. https://doi.org/10.1080/03043797.2021.1903835.

Capron, I., & Audrin, C. (2021). Improving self-efficacy and creative self-efficacy to foster creativity and learning in schools. Thinking Skills and Creativity, 42(July), 100966. https://doi.org/10.1016/j.tsc.2021.100966.

Chan, J. P., Pazouki, K., & Norman, R. A. (2023). An experimental study into the fault recognition of onboard systems by navigational officers. Journal of Marine Engineering & Technology ISSN:, 22(2), 101–110. https://doi.org/10.1080/20464177.2022.2143312.

Cherewick, M., Hipp, E., Njau, P., & Dahl, R. E. (2023). Growth mindset, persistence, and self-efficacy in early adolescents: Associations with depression, anxiety, and externalising behaviours. Global Public Health, 18(1). https://doi.org/10.1080/17441692.2023.2213300.

Choi, J., Lee, S., & Kim, S. (2022). Improving the current regulatory issues concerning training ships for maritime institutions_ The South Korean case. The Asian Journal of Shipping and Logistics, 38(3), 125–134. https://doi.org/10.1016/j.ajsl.2022.02.001.

Daff, L., Tame, C., & Sands, J. (2024). A course design approach that encourages reflective practice habits. The International Journal of Management Education, 22(2), 100990. https://doi.org/10.1016/j.ijme.2024.100990.

Daly, R., Spooner, M., Offiah, G., Flood, K., & Illing, J. (2024). Protocol for a realist review of case-based learning in undergraduate medical education. International Journal of Educational Research Open, 7(May), 100366. https://doi.org/10.1016/j.ijedro.2024.100366.

Evangelista, A., Manghisi, V. M., Giglio, V. De, Mariconte, R., Giliberti, C., & Uva, A. E. (2025). From knowledge to action : Assessing the effectiveness of immersive virtual reality training on safety behaviors in confined spaces using the Kirkpatrick model. Safety Science, 181(September 2024).

Ferns, S. J., Zegwaard, K. E., Pretti, T. J., & Rowe, A. D. (2025). Defining and designing work-integrated learning curriculum. Higher Education Research & Development, 44(2), 371–385. https://doi.org/10.1080/07294360.2024.2399072.

Ghahramani, A., Ebrahimi, M., & Hajaghazadeh, M. (2023). Development and psychometric evaluation of an occupational health and safety performance tool for manufacturing companies. Heliyon, 9(6), e17343. https://doi.org/10.1016/j.heliyon.2023.e17343.

Ghosh, S., & Emad, G. R. (2025). Identifying challenges in designing and implementing a skills and competency framework for future seafarers : a systematic literature review. Australian Journal of Maritime & Ocean Affairs, 6503, 540–553. https://doi.org/10.1080/18366503.2024.2356365

Ghosh, S., Emad, G. R., & Ravi, A. (2024). Investigating the characteristics of skills and competency frameworks through a systematic literature review : a feasibility study to revise the STCW Code for seafarer training. *Australian Journal of Maritime & Ocean Affairs*, 6503, 1–17. https://doi.org/10.1080/18366503.2024.2374606.

Grytnes, R., Tutt, D. E., Peter, L., & Andersen, S. (2020). Developing safety cooperation in construction : between facilitating independence and

tightening the grip. Construction Management and Economics, 38(11), 977–992. https://doi.org/10.1080/01446193.2020.1726978.

Gul, M. (2020). A fuzzy-based occupational health and safety risk assessment framework and a case study in an international port authority. Journal of Marine Engineering & Technology, 19(4), 161–175. https://doi.org/10.1080/20464177.2019.1670994.

Hampel, N., Sassenberg, K., Scholl, A., Ditrich, L., Hampel, N., & Sassenberg, K. (2024). Enactive mastery experience improves attitudes towards digital technology via self-efficacy – a pre-registered quasi-experiment. Behaviour & Information Technology ISSN:, 43(2), 298–311. https://doi.org/10.1080/0144929X.2022.2162436.

Hansen, S., Chen, J., Erik, N., Lyngdorf, R., Bertel, L. B., & Du, X. (2025). Supporting psychological safety in teamwork – in which ways do engineering students feel safe doing creativity – focused interventions in a PBL environment ? European Journal of Engineering Education, 3797, 1–20. https://doi.org/10.1080/03043797.2025.2522278.

Haque, Z., Kjeldsberg, F., Kim, T., & Bustgaard, M. (2025). Prediction accuracy in maritime simulator training performance assessment with varying data frequency. Array, 27(July), 100489. https://doi.org/10.1016/j.array.2025.100489.

Heslin, P. A., Keating, L. A., & Ashford, S. J. (2020). How being in learning mode may enable a sustainable career across the lifespan. Journal of Vocational Behavior, 117(June 2019), 103324. https://doi.org/10.1016/j.jvb.2019.103324.

Ho, W. W. Y., & Lau, Y. H. Y. (2025). Role of reflective practice and metacognitive awareness in the relationship between experiential learning and positive mirror effects : A serial mediation model. Teaching and Teacher Education, 157(January), 104947. https://doi.org/10.1016/j.tate.2025.104947.

Högstedt, D., Eriksson, E., Jansson, I., & Engström, M. (2024). Self-rated professional competence and well-being at work after obtaining a Swedish nursing license : A longitudinal mixed-methods study of internationally and domestically educated nurses. International Journal of Nursing Studies, 157, 104812. https://doi.org/10.1016/j.ijnurstu.2024.104812.

Ibrion, M., Paltrinieri, N., & Nejad, A. R. (2021). Learning from failures in cruise ship industry : The blackout of Viking Sky in Hustadvika , Norway. Engineering Failure Analysis, 125(November 2020), 105355. https://doi.org/10.1016/j.engfailanal.2021.105355.

Jackson, D., & Connor, M. D. O. (2024). Curriculum approaches to strengthening student employability and improving graduate outcomes in the STM disciplines. International Journal of Science Education, 0693, 1–24. https://doi.org/10.1080/09500693.2024.2419393

Jackson, D., & Cook, E. J. (2025). Studies in Higher Education Work-integrated learning in the humanities , arts and social sciences : where to from here ? Studies in Higher Education, 50(9), 2048–2067. https://doi.org/10.1080/03075079.2024.2409879

Jeffs, C., Nelson, N., Grant, K. A., Nowell, L., Paris, B., & Viceer, N. (2023). Feedback for teaching development : moving from a fixed to growth mindset. Professional Development in Education, 49(5), 842–855. https://doi.org/10.1080/19415257.2021.1876149.

Keykhaei, M., Samany, N. N., & Jelokhani-, M. (2024). Geo-spatial Information Science A situation-aware emergency evacuation (SAEE) model using multi-agent-based simulation for crisis management after earthquake warning. Geo-Spatial Information Science, 27(6), 1800–1823. https://doi.org/10.1080/10095020.2023.2270017.

Koh, L. Y., Li, X., Wang, X., & Yuen, K. F. (2024). Technology Analysis & Strategic Management Key knowledge domains for maritime shipping executives in the digital era : a knowledge-based view approach. Technology Analysis & Strategic Management, 36(7), 1646–1663. https://doi.org/10.1080/09537325.2022.2106841.

Korseberg, L., & Stalheim, O. R. (2024). Professional Development in Education The role of digital technology in facilitating epistemic fluency in professional education. Professional Development in Education, 00(00), 1–17. https://doi.org/10.1080/19415257.2024.2421489.

Kristin, H., Kaldheim, A., Fossum, M., Munday, J., Creutzfeldt, J., & Sletteb, Å. (2021). Use of interprofessional simulation-based learning to develop perioperative nursing students ' self-efficacy in responding to acute situations. International Journal of Educational Research, 109(March). https://doi.org/10.1016/j.ijer.2021.101801.

Kwasi, D., Asante, S., Owusu-amponsah, N. Y., Waller, Z., Rasouli, V., Ullrich, G., Snyder, P., & Corbin, N. (2023). Development of a generative voluntary safety reporting culture (GVSRC) model for the Gulf of Mexico (GOM) oil and gas (O & G) sector using attributes of the aviation safety action program (ASAP). Safety Science, 161(February).

Lawton, V., Pacey, V., Chan, C., Jones, T. M., & Dean, C. M. (2025). Determining the domains of work readiness in physiotherapy : Australian graduate and employer perspectives. European Journal of Physiotherapy, 27(1), 10–19. https://doi.org/10.1080/21679169.2024.2317134.

Mallam, S. C., Marit, A., & Aas, J. (2022). Reintroducing the sharp-end operator to organizational learning : How accident reports are used by

p-ISSN: 2089-6980
e-ISSN: 2527-3280

maritime officers. Safety Science, 147(February 2021), 105632. https://doi.org/10.1016/j.ssci.2021.105632.

Marschall, G. (2023). Teacher self-ef fi cacy sources during secondary mathematics initial teacher education. Teaching and Teacher Education, 132, 104203. https://doi.org/10.1016/j.tate.2023.104203.

Misas, J. D. P., Hopcraft, R., Tam, K., & Jones, K. (2024). Future of maritime autonomy : cybersecurity , trust and mariner ' s situational awareness. Journal of Marine Engineering & Technology ISSN:, 4177. https://doi.org/10.1080/20464177.2024.2330176.

Møller, J. L., Kines, P., Dyreborg, J., Andersen, L. L., & Jeppe, Z. N. (2021). The competences of successful safety and health coordinators in construction projects. Construction Management and Economics, 39(3), 199–211. https://doi.org/10.1080/01446193.2020.1818800.

Mona, H., & Lau, A. (2023). Being ready for digital transformation : How to enhance employees ' intentional digital readiness. Computers in Human Behavior Reports, 11(May). https://doi.org/10.1016/j.chbr.2023.100314.

Mori, Y., & Manuel, M. (2024). An exploratory study of approaches to onboard training in different countries. Journal of International Maritime Safety, Environmental Affairs, and Shipping, 8(3). https://doi.org/10.1080/25725084.2024.2386221.

Mseleku, Z. (2024). Transitioning from higher education to the labour market : the role of graduate internship on youth graduate employability. Cogent Education, 11(1). https://doi.org/10.1080/2331186X.2024.2428069.

Nasar, W., Gundersen, O. E., Torres, R. da S., & Karlsen, A. (2024). Knowledge Graphs to Accumulate and Convey Knowledge from Past Experiences in Search and Rescue Planning and Resource Allocation. Applied Artificial Intelligence, 38(1). https://doi.org/10.1080/08839514.2024.2434296.

Nielsen, K., Ng, K., Vignoli, M., Lorente, L., & Peiró, J. M. (2023). A mixed methods study of the training transfer and outcomes of safety training for low-skilled workers in construction. Work & Stress, 37(2), 127–147. https://doi.org/10.1080/02678373.2022.2086646.

Nyström, S., & Ahn, S. (2025). Vocational students ' experiences and reflections on simulation training – what differences enable or hinder learning ? Journal of Vocational Education & Training, 00(00), 1–18. https://doi.org/10.1080/13636820.2025.2449659.

Onakpojeruo, D., Jeong, B., & Park, C. (2023). Mental wellbeing ; Human reliability assessment of seafarers during the COVID-19 era. Journal of International Maritime Safety, Environmental Affairs, and Shipping, 7(1). https://doi.org/10.1080/25725084.2023.2184604.

Orr, P., Forsyth, L., Caballero, C., Rosenberg, C., & Walker, A. (2023). A systematic review of Australian higher education students ' and graduates ' work readiness. Higher Education Research & Development, 42(7), 1714–1731. https://doi.org/10.1080/07294360.2023.2192465.

Pacheco, P. O., Coello-montecel, D., & Andrei, D. M. (2023). Validation of the Spanish version of the Neal , Griffin and Hart safety behavior scale. International Journal of Occupational Safety and Ergonomics, 29(4), 1402–1415. https://doi.org/10.1080/10803548.2022.2131277.

Pandey, B. R. (2025). Rethinking occupational health and safety principles — a systems perspective. Journal of the Royal Society of New Zealand, 6758. https://doi.org/10.1080/03036758.2024.2333555.

Pauksztat, B., Grech, M. R., & Kitada, M. (2022). The impact of the COVID-19 pandemic on seafarers ' mental health and chronic fatigue : Beneficial effects of onboard peer support , external support and Internet access. Marine Policy, 137(April 2021), 104942. https://doi.org/10.1016/j.marpol.2021.104942.

Peersia, K., Rappa, N. A., & Perry, L. B. (2024). Work readiness : definitions and conceptualisations. Higher Education Research & Development, 43(8), 1830–1845. https://doi.org/10.1080/07294360.2024.2366322.

Phanphichit, T., & Bartusevičienė, I. (2024). Perspectives of stakeholders on onboard training : A thematic analysis of qualitative interviews. Journal of International Maritime Safety, Environmental Affairs, and Shipping, 8(4). https://doi.org/10.1080/25725084.2024.2408698.

Pianda, D., Hilmiana, H., Widianto, S., & Sartika, D. (2024). The impact of internship experience on the employability of vocational students : a bibliometric and systematic review. Cogent Business & Management, 11(1). https://doi.org/10.1080/23311975.2024.2386465

Pourmazaherian, M., & Musonda, I. (2022). Worker competence and safety performance the mediation role of safety orientation in construction industry. Cogent Public Health, 9(1). https://doi.org/10.1080/27707571.2022.2145702.

Pribadi, A. P., Rahman, Y. M. R., & Silalahi, C. D. A. B. (2024). Analysis of the effectiveness and user experience of employing virtual reality to enhance the efficacy of occupational safety and health learning for electrical workers and graduate students. Heliyon, 10(15), e34918. https://doi.org/10.1016/j.heliyon.2024.e34918.

Richardson, D., Kinnear, B., Hauer, K. E., Turner, T. L., Warm, J., Hall, A. K., Ross, S., Thoma, B., & Melle, E. Van. (2021). Growth mindset in

competency-based medical education. Medical Teacher, 43(7), 751–757. https://doi.org/10.1080/0142159X.2021.1928036.

Rusland, S. L., Jaafar, N. I., & Sumintono, B. (2020). Evaluating knowledge creation processes in the Royal Malaysian Navy (RMN) fleet : Personnel conceptualization , participation and differences Evaluating knowledge creation processes in the Royal Malaysian Navy (RMN) fleet : Personnel conceptualization. Cogent Business & Management, 07(01). https://doi.org/10.1080/23311975.2020.1785106.

Sadoughi, M., & Hejazi, S. Y. (2024). Growth language mindset and willingness to communicate : Contributions of linguistic risk taking and learning experience. Acta Psychologica, 248(March), 104367. https://doi.org/10.1016/j.actpsy.2024.104367.

Sasanawin, P., Surawattanasakul, V., Prasan, S., & Banomyong, K. (2025). The Differences in Necessary Competencies , Skills , and Performance Abilities Among Thai Board-Certified Occupational Medicine Physicians and Basic Occupational Medicine Certified Physicians. Journal of Multidisciplinary Healthcare, 2390. https://doi.org/10.2147/JMDH.S509530.

Schulte, P. A., Jacklitsch, B. L., Bhattacharya, A., Chun, H., Edwards, N., Flynn, M. A., Guerin, R., Hodson, L., Lincoln, J. M., Macmahon, K. L., Siven, J., & Vietas, J. (2023). Updated assessment of occupational safety and health hazards of climate change. Journal of Occupational and Environmental Hygiene, 20(5–6), 183–206. https://doi.org/10.1080/15459624.2023.2205468.

Sellberg, C., Lindwall, O., & Rystedt, H. (2021). The demonstration of reflection-in-action in maritime training. Reflective Practice, 22(3), 319–330. https://doi.org/10.1080/14623943.2021.1879771.

Şenbursa, N., Şenbursa, G., Sİvrİ, F., Uğurlu, Ö., & Çelİk, B. (2024). Understanding seafarers' physical and mental health. Journal of International Maritime Safety, Environmental Affairs, and Shipping, 8(4). https://doi.org/10.1080/25725084.2024.2421708.

Seo, H. J., & Hong, A. J. (2023). Text mining analysis on research trends in workplace safety engagement education Text mining analysis on research trends in workplace safety engagement education. Cogent Education, 10(1). https://doi.org/10.1080/2331186X.2023.2197665.

Setthakorn, K. P. (2023). What drives performance while being far away from home ? An examination of leader-member exchange (LMX) ambivalence , job embeddedness , trust , and perceived organisation support of Thai seafarers. Cogent Business & Management, 10(3). https://doi.org/10.1080/23311975.2023.2285083.

Shapiro, E., Piotrowska, B., & Sime, P. J. (2024). Work readiness of student nurses voluntarily supporting NHS during COVID-19 pandemic : a mixed methods investigation into students ' experiences. Contemporary Nurse, 60(6), 683–696. https://doi.org/10.1080/10376178.2024.2404843.

Sharma, A., & Kim, T. (2022). Exploring technical and non-technical competencies of navigators for autonomous shipping. Maritime Policy & Management, 49(6), 831–849. https://doi.org/10.1080/03088839.2021.1914874.

Shomotova, A., Karabchuk, T., & Ibrahim, A. (2024). Leadership potential and self-perceived employability of undergraduate students in the United Arab Emirates. International Journal of Educational Research Open, 7(December 2023), 100335. https://doi.org/10.1016/j.ijedro.2024.100335.

Song, R., Papadimitriou, E., Negenborn, R. R., & Van, P. (2025). Safety and efficiency of human-MASS interactions : towards an integrated framework. Journal of Marine Engineering & Technology, 24(3), 159–178. https://doi.org/10.1080/20464177.2024.2414959.

Sousa, B. J., & Clark, A. M. (2025). Growth mindsets in academics and academia : a review of influence and interventions. Journal of Higher Education Policy and Management, 47(1), 38–56. https://doi.org/10.1080/1360080X.2024.2384003.

Strojny, P., & Natalia Duzmanska-Misiarczyk. (2023). Measuring the effectiveness of virtual training : A systematic review. Computers & Education: X Reality, 2(July 2022). https://doi.org/10.1016/j.cexr.2022.100006.

Summerscales, J. (2024). Harvesting tacit knowledge for composites workforce development. Composites Part A, 185(June), 108357. https://doi.org/10.1016/j.compositesa.2024.108357.

Sung, T., & Hsu, H. (2025). Improving Critical Care Teamwork : Simulation- Based Interprofessional Training for Enhanced Communication and Safety. Journal of Multidisciplinary Healthcare, 2390, 355–367. https://doi.org/10.2147/JMDH.S500890.

Suputra, I. N., Basuki, A., Gunawan, A., & Syafruddin, A. B. (2024). Does work-integrated curriculum transformation affect learning experience , student competencies , and learning interactions ? The role of teaching strategy moderation. Cogent Education, 11(1). https://doi.org/10.1080/2331186X.2024.2375676.

Tan, L., Ratanaolarn, T., & Sriwisathiyakun, K. (2025). Project-based blended learning for vocational education : Enhancing digital marketing competencies and team spirit. Cogent Education, 12(1). https://doi.org/10.1080/2331186X.2025.2498092.

Tang, L., Abila, S., Kitada, M., Malecosio, S., & Krista, K. (2022). Seafarers ' mental health during

p-ISSN: 2089-6980
e-ISSN: 2527-3280

the COVID-19 pandemic : An examination of current supportive measures and their perceived effectiveness. Marine Policy, 145(April), 105276. https://doi.org/10.1016/j.marpol.2022.105276

Taveras, C. M., Claro, S., Santelices, M. V., & Trzesniewski, K. (2025). Exploring teacher growth mindset measurement : an analytical synthesis. Cogent Education, 12(1). https://doi.org/10.1080/2331186X.2025.2536360

Teperi, A., Paajanen, T., Asikainen, I., & Lantto, E. (2023). From must to mindset : Outcomes of human factor practices in aviation and railway companies. Safety Science, 158(September 2022), 105968. https://doi.org/10.1016/j.ssci.2022.105968.

Thanh, N. H., & Anh, N. N. (2023). The relationship between effective personality and occupational health of lecturers : An empirical assessment in vietnam. Heliyon, 9(2), e13231. https://doi.org/10.1016/j.heliyon.2023.e13231.

Thi, M., Ta, D., Kim, T., & Gausdal, A. H. (2022). Leadership styles and safety performance in high- risk industries : a systematic review. Safety and Reliability, 41(1), 10–44. https://doi.org/10.1080/09617353.2022.2035627.

Turner, S., Harder, N., Martin, D., & Gillman, L. (2023). Psychological safety in simulation : Perspectives of nursing students and faculty. Nurse Education Today, 122(July 2022), 105712. https://doi.org/10.1016/j.nedt.2023.105712.

Vitrano, G., Urso, D., Micheli, G. J. L., Guglielmi, A., Merich, D. De, & Pellicci, M. (2024). Enabling Effective Implementation of Occupational Safety and Health Interventions. Safety and Health at Work, 15(2), 213–219. https://doi.org/10.1016/j.shaw.2024.04.003.

Vocht, F. De, Garay, S., Reed, H., Small, G., Barrett, A., Murphy, S., & Morgan, K. (2024). Impacts of the Mindset Teams Programme on Teacher Outcomes and Pupil Educational Attainment : Secondary Data Analysis. Journal of Research on Educational Effectiveness, 0(0), 1–17. https://doi.org/10.1080/19345747.2024.2403989.

Walker, A., Nagarajan, S. V., Orr, P., Elphinston, R., Dunne, M., & Mcallister, L. (2024). Allied health work readiness capabilities : a qualitative comparison of graduates , supervisors , and managers ' perspectives. Journal of Interprofessional Care, 38(6), 1026–1034. https://doi.org/10.1080/13561820.2024.2406476.

Wallis, R. (2021). Career readiness : developing graduate employability capitals in aspiring media workers. Journal of Education and Work, 34(4), 533–543. https://doi.org/10.1080/13639080.2021.1931666.

Warren, A., & Gibson, C. (2024). The Place-based Work of Global Circulation : Maritime Workers , Collaboration , and Labor Agency at the Seaport. Economic Geography, 0095. https://doi.org/10.1080/00130095.2023.2263127

Weijzen, S. M. G., Onck, C., Wals, A. E., Tassone, V. C., & Kuijer-siebelink, W. (2024). Vocational education for a sustainable future : Unveiling the collaborative learning narratives to make space for learning. Journal of Vocational Education & Training, 76(2), 331–353. https://doi.org/10.1080/13636820.2023.2270468

Wingen, S., Graczyk, T., Wingen, T., & Dohle, S. (2024). Mindsets at Work : Understanding the Positive Impact of Growth Mindsets on Workplace Coaching. Basic and Applied Social Psychology, 46(5), 381–397. https://doi.org/10.1080/01973533.2024.2382718.

Xi, Y., Hu, S., Yang, Z., Fu, S., & Weng, J. (2023). Analysis of safety climate effect on individual safety consciousness creation and safety behaviour improvement in shipping operations. Maritime Policy and Management, 50(7), 941–956. https://doi.org/10.1080/03088839.2022.2059718.

Yan, Z., King, R. B., & Haw, J. Y. (2021). Formative assessment , growth mindset , and achievement : examining their relations in the East and the West. Assessment in Education: Principles, Policy & Practice, 28(5–6), 676–702. https://doi.org/10.1080/0969594X.2021.1988510.

Yuan, R., Peng, W., & Jiang, J. (2024). Relationship Between Growth Mindset and Self-Control Amongst Chinese Primary School Students : A Longitudinal Study. Psychology Research and Behavior Management, 1578. https://doi.org/10.2147/PRBM.S468490.

Zhan, S., Chapman, E., Valentine, A., & Male, S. (2025). Enhancing the measurement of employability in engineering : insights from a systematic literature review. European Journal of Engineering Education, 3797(May), 1–20. https://doi.org/10.1080/03043797.2025.2502473.

Zhou, N., Tigelaar, D. E. H., & Admiraal, W. (2024). Factors influencing the impact of work placement on vocational teachers ' school practice. Educational Studies, 50(6), 1260–1279. https://doi.org/10.1080/03055698.2022.2069462.