East Asian Journal of Multidisciplinary Research (EAJMR)
Vol. 4, No. 6, 2025: 2385 - 2400

The Lived Experiences of Maritime Cadets: Applying Master Class Knowledge in Real-World Shipboard Operations

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A R T I C L E I N F O

Keywords: Maritime Education, Shipboard Training, Theory-Practice Gap, Experiential Learning, Cadet Experiences

Received : 05, May
Revised : 20, May
Accepted: 11, June

A B S T R A C T

This qualitative study explored the experiences of maritime cadets from the Palompon Institute of Technology in applying knowledge gained from the Master Class subject during their shipboard training. These challenges included differences in procedures between school and vessel practices, limitations of classroom-based learning without sufficient hands-on experience, and external factors such as company priorities and pandemic-related disruptions. To address these challenges, cadets employed various coping mechanism: active self-learning through manuals and independent study, seeking guidance from experienced crew members, and developing personal resilience and adaptability. The study concluded that while the Master Class subject serves as a crucial preparatory tool, maritime education would benefit from enhanced practical components and more immersive experiences before cadets embark on shipboard training. This research contributes to the ongoing dialogue on improving maritime education and training by highlighting the importance of aligning theoretical instruction with real-world application to better prepare future seafarers for the complexities of life at sea.

DOI prefix: https://doi.org/10.55927/eajmr.v4i6.159
ISSN-E: 2828 – 1519 (Online)
https://mtiformosapublisher.org/index.php/eajmr

INTRODUCTION

There's a big difference between learning something in a classroom and actually doing it in real life—especially in the maritime industry. In school, cadets study navigation, ship stability, cargo handling, and maritime law as separate subjects. But onboard a ship, these subjects don't exist in isolation. Everything was interconnected—voyage planning wasn't just about plotting courses; it also involves weather forecasting, stability calculations, and compliance with international regulations. A simple task, like preparing for departure, requires a mix of skills, quick thinking, and teamwork. Unlike the structured nature of academic learning, real shipboard operations are dynamic, fast-paced, and sometimes unpredictable.

To help bridge this gap, the Master Class was introduced into the curriculum of the Palompon Institute of Technology (PIT). Unlike traditional subjects, the Master Class combines key maritime disciplines into a more integrated approach, mimicking how tasks were carried out onboard. It allowed students to connect what they've learned across different subjects—navigation, ship handling, safety management—and apply them as a whole. In theory, this should prepare them for shipboard life. But how well does it actually work in practice? This research was conducted specifically with cadets from PIT who have taken the Master Class subject and have experienced applying their knowledge onboard. Their insights were valuable in understanding whether the course truly equips them for the realities of life at sea.

This study focused on the real-life experiences of these cadets applying their Master Class knowledge onboard—the challenges they face and how they overcome them. Research by Phewa (2021) suggested that while maritime education provided solid theoretical training, it often doesn't fully match the realities of shipboard work. Similarly, Karahalil, Lützhöft, and Scanlan (2024) highlight that simulator-based learning was helpful, but it can't fully prepare cadets for the decision-making and problem-solving required at sea. Many cadets find themselves in situations where procedures differ from what they were taught, expectations were higher, and they need to think on their feet.

Beyond technical skills, cadets also deal with emotional and psychological challenges. The transition from a classroom to life onboard can be overwhelming. Saile et al. (2017) found that stress plays a big role in how well cadets adapt, while Lucky et al. (2015) emphasize the importance of resilience and coping strategies. The shift from a controlled learning environment to a fast-paced shipboard setting can be tough, and many cadets struggle to adjust.

This research sought to capture their voices—their struggles, their learning experiences, and their growth. Kolb's (2014) experiential learning theory emphasized that real learning happens through hands-on experience and reflection, which was why understanding cadets' firsthand accounts was crucial. By listening to their stories, we can identify gaps in maritime education and explore ways to make the Master Class more effective, practical, and relevant to the challenges they will face at sea.

At the heart of this study was the goal of ensuring that cadets don't just memorize theories but become confident, competent, and prepared maritime

professionals. Because in the real world, knowing something wasn't enough—it's about knowing how to apply it when it matters most.

THEORETICAL REVIEW

This study draws primarily from two interrelated theoretical frameworks—Kolb's Experiential Learning Theory (ELT) and Vygotsky's Zone of Proximal Development (ZPD)—to analyze how maritime cadets from the Palompon Institute of Technology apply classroom knowledge to real-world shipboard contexts.

Kolb's Experiential Learning Theory (ELT)

David Kolb (1984) emphasized that effective learning occurs through a continuous cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. This cycle is particularly relevant to maritime education, where cadets engage in shipboard training that demands real-time decision-making, problem-solving, and adaptability.

The Master Class subject was designed with experiential principles in mind—integrating knowledge from navigation, stability, meteorology, and operations into a practical, scenario-based curriculum. However, cadets often encountered a theory-practice gap, discovering that actual vessel operations were more complex and dynamic than classroom simulations. This aligns with Kolb's premise that hands-on experiences and reflection are critical to true competence.

Cadets' narratives—such as performing real-time ETA calculations or adjusting stability under dynamic conditions—reflect how they progressed through Kolb's learning stages. Their reflections, especially about learning from mistakes and adapting through feedback, reinforce the importance of experiential learning in forming competent maritime professionals.

Vygotsky's Zone of Proximal Development (ZPD)

Lev Vygotsky's (1978) ZPD highlights the role of social interaction and mentorship in accelerating learning. It refers to the gap between what a learner can do independently and what they can achieve with guidance. This theory is especially relevant in shipboard environments, where cadets often rely on experienced officers and crew to understand complex tasks and operations.

The study revealed that cadets frequently bridged their knowledge gaps by asking questions, observing seniors, and applying feedback from their mentors. These interactions enabled them to perform tasks they couldn't accomplish alone, such as complex stability calculations or advanced navigation planning.

This aligns with Vygotsky's assertion that knowledge is co-constructed through dialogue and collaboration, rather than passively received. Cadets' reliance on mentorship to translate Master Class knowledge into practice demonstrates how social scaffolding enhances skill acquisition, especially in high-stakes, real-world settings like seafaring.

Together, Kolb and Vygotsky provide a comprehensive lens for understanding how cadets learn through experience and social engagement. Kolb explains the internal learning process, while Vygotsky emphasizes the external

support system. By combining these theories, maritime education can be restructured to include more hands-on, socially supported learning environments, thereby preparing cadets not just to know—but to do, reflect, and grow.

METHODOLOGY

This study employed a qualitative research approach to explore the real-life experiences of maritime cadets from the Palompon Institute of Technology as they applied knowledge gained from the Master Class during their shipboard training. Grounded Theory was used as the primary methodological framework, specifically following the Glaserian approach. This approach allowed for the systematic development of theory grounded in participants' actual experiences by applying open coding, constant comparison, and theoretical sensitivity. The aim was to generate data-driven insights into the processes by which cadets translated classroom knowledge into shipboard application.

To interpret and contextualize the emergent themes, the study was informed by Kolb's (1984) Experiential Learning Theory. Kolb's model provided a theoretical lens for understanding how cadets engage in a cyclical learning process: beginning with concrete experience, engaging in reflective observation, progressing to abstract conceptualization, and culminating in active experimentation. This was particularly relevant for exploring how cadets learned from their day-to-day experiences on board and adapted over time.

Participant Selection and Data Collection

In qualitative research, purposive sampling is used to ensure the selection of participants whose experiences are most relevant to the research questions (Khan, 2014). An environmental scan was conducted to identify cadets who had completed the Master Class subject and had undergone shipboard training. A total of seven cadets participated in the study. Data saturation was achieved by the seventh interview, as no new themes were emerging.

Data were gathered through semi-structured interviews conducted both online and face-to-face, depending on participant availability and location. This hybrid approach provided flexibility and enabled a richer, more inclusive data set. The interviews were guided by an interview protocol that covered three key areas:

1. Experiences – What are the cadets' experiences in applying the knowledge from the Master Class subject onboard?
2. Challenges – What challenges did the cadets encounter in translating their theoretical knowledge into real-world shipboard operations?
3. Adaptation – How did the cadets address and overcome these challenges while onboard?

Each interview lasted approximately 20 to 30 minutes and was audio-recorded with the participants' consent. Verbatim transcription of each interview was completed shortly after data collection.

Data Analysis

The collected data were analyzed using thematic analysis guided by the principles of Grounded Theory. The analysis followed Braun and Clarke's (2006) six-step approach:

1. Familiarization – All transcripts were read multiple times to immerse in the content and identify initial impressions.
2. Initial Coding – Open coding was applied to break down the data into discrete parts, with codes reflecting recurring concepts, emotions, or challenges.
3. Searching for Themes – Similar codes were grouped to form potential themes that addressed the research questions.
4. Reviewing Themes – Themes were refined through constant comparison, ensuring they accurately reflected the full data set and eliminated overlaps or inconsistencies.
5. Defining and Naming Themes – Final themes were clearly defined and supported with relevant subthemes and data excerpts.
6. Writing the Report – Key quotations were selected to illustrate each theme, and findings were interpreted using Kolb's Experiential Learning Theory to show how cadets progressed through learning cycles.

Throughout the analysis, constant comparative techniques were used to compare incidents within and across interviews, allowing for the development of a more robust and grounded understanding of how cadets bridged the theory-practice gap.

Trustworthiness and Ethical Considerations

To enhance credibility, member checking was conducted by sharing summaries of the transcripts with the participants to validate the accuracy of the researchers' interpretations. Confidentiality and anonymity were ensured by assigning pseudonyms and securing all audio and text data. The study received ethical clearance from the institution and adhered to research integrity protocols.

RESULTS AND DISCUSSION

This section presents the findings of the study based on the experiences of cadets in applying the knowledge gained from the Master Class subject during their shipboard training. It also explores the challenges they encountered and the strategies they used to overcome these difficulties. The responses were analyzed thematically to identify common trends among the cadets' experiences.

The findings highlight the significance of the Master Class subject in preparing cadets for real-world maritime operations. While many found the theoretical knowledge beneficial, they also faced difficulties in applying certain concepts due to differences between classroom instruction and actual onboard practices. To address these challenges, cadets adopted various learning strategies, including seeking guidance from senior officers, engaging in self-study, and hands-on application of their skills.

These findings align with Phewa (2021), who identified challenges in maritime education and training (MET) curricula, particularly in bridging the gap between theoretical instruction and practical application. The study emphasized that cadets often struggle with real-world scenarios that are not adequately simulated in classroom settings. Furthermore, Suppiah (2007) noted that maritime educators must find ways to integrate practical exposure into MET curricula to ensure cadets are adequately prepared for shipboard realities.

The discussion in this section provides insights into how maritime education can be further enhanced to better equip cadets for their future careers at sea.

Cadets' Experiences in Applying Knowledge from the Master Class Subject

Cadets generally found the Master Class subject to be useful and applicable onboard, particularly in navigation, stability, and ship operations. However, their experiences varied based on how well the knowledge aligned with real-world practices and the expectations set by officers and crew members.

Table 1: *Cadets' Experiences*

Themes	**Subthemes**	**Codes**
Practical Application of Knowledge	- Watchkeeping and navigation - Stability calculations - Cargo handling and meteorology	- Answering officer's questions on watchkeeping - Calculating ETA - Plotting positions on paper charts and ECDIS - Determining GM and stability
Alignment with Real-World Operations	- Basic knowledge was useful but required further learning - Officers' expectations from cadets	- Basic principles of navigation and stability were applicable - Officers expected cadets to know fundamental concepts
Influence of Instructors and Teaching Methods	- Learning from real-life experiences shared by instructors	- Lessons were well-presented

	- Master Class as essential preparation	- Teachers shared personal experiences that were useful onboard

Theme 1. Practical Application of Knowledge

One of the most significant themes was the direct application of Master Class knowledge in watchkeeping, navigation, stability, and cargo operations. Cadets shared that having prior knowledge of these subjects made them more prepared when faced with actual tasks onboard.

One cadet reflected on how their knowledge in navigation was helpful:
"I was able to answer most questions from my officers about proper watchkeeping. Moreover, I was able to execute basic navigation skills like calculating ETA, plotting positions on paper charts and ECDIS, as well as proper and safe route planning."(P1)
Another cadet shared a similar experience regarding ship stability:
"During my time onboard, I was tasked to take daily corrections and calculate gyro and magnetic errors. I was also given a project on stability, determining safe and qualified GM. At least the very basic principles of how things work onboard were covered in Master Class."(P2)

These findings are consistent with Karahalil, Lützhöft, & Scanlan (2024), who emphasized that simulator-based education plays a critical role in reinforcing theoretical maritime knowledge. However, their study also pointed out that the extent of knowledge transfer depends on how well cadets can relate classroom learning to actual maritime operations. This supports the need for more practical exposure to strengthen cadets' ability to apply what they learn in school.

Furthermore, Kolb (2014) proposed the experiential learning theory, which suggests that learning is most effective when students engage in hands-on activities. The cadets' reflections in this study highlight how direct engagement with shipboard tasks helped reinforce their learning, validating the importance of experiential learning in maritime education.

Theme 2. Alignment with Real-World Operations

While the Master Class subject was beneficial, cadets noted that real-world operations were sometimes more complex than what was taught in school. Officers expected them to already know certain principles upon joining the ship, and they had to quickly adapt to bridge the gap between theoretical knowledge and practical application.

One cadet shared their realization about officers' expectations:
"Master Class helps a lot in terms of basic knowledge in navigation, meteorology, cargo handling, etc. I applied it onboard, and my officers' expectations of me as a new cadet were as expected."(P3)

This aligns with Meštrović et al. (2024), who found that the increasing complexity of shipboard operations requires cadets to go beyond theoretical learning and engage in more hands-on experiences before joining a vessel. They highlighted that traditional maritime curricula often fail to prepare cadets for the

unpredictability of shipboard duties, reinforcing the need for educational institutions to strengthen practical training methods.

Moreover, Simanjuntak, Rafli, & Utami (2024) explored post-internship perspectives and preparedness among cadets and found that many maritime students initially struggle with the transition from classroom to onboard settings. Their study recommended closer collaboration between maritime institutions and shipping companies to ensure that training aligns with industry needs.

Theme 3. Influence of Instructors and Teaching Methods

Cadets appreciated how their instructors' presented lessons and shared real-life experiences. This made the Master Class more engaging and helped them understand how the knowledge applied in actual shipboard scenarios.
One cadet highlighted this:
"Master Class in school as a student in PIT is very essential. Those visitors/teachers taught us very presentable lessons that can be used onboard. They also shared their experiences, which can be useful in the future or during cadetship."(P5)

Another cadet emphasized that the way Master Class was taught contributed to their confidence onboard:
"It helps me a lot because Master Class subject gave me a thorough understanding of maritime subjects that helped me while I was still onboard as a cadet."(P6)

The role of instructors in maritime education is crucial, as supported by Drake & Reid (2021), who questioned the sole reliance on systematic literature reviews in education and advocated for more instructor-led, experience-based learning.

Additionally, Saile et al. (2017) examined stress and coping strategies among maritime students and found that those who had supportive instructors and interactive teaching methods were better prepared for their onboard experiences. This further validates the impact of effective teaching strategies on cadets' preparedness.

The cadets' experiences show that Master Class was a valuable foundation for shipboard tasks, but there were still gaps in aligning theoretical learning with real-world applications. While basic knowledge was useful, cadets had to adapt and learn more onboard.

A key takeaway is that stronger integration between classroom learning and onboard expectations—such as more hands-on simulations or shipboard training—could further enhance cadets' readiness for their roles at sea. This supports Simanjuntak & Barus (2024), who advocated for a holistic approach to maritime education that integrates environmental, technological, and practical training components.

Future improvements in maritime education should consider incorporating more experiential learning (Kolb, 2014), aligning curricula with real-world maritime industry expectations (Meštrović et al., 2024), and enhancing instructor-led engagement (Drake & Reid, 2021). By doing so, institutions can better equip cadets for the challenges they will face at sea.

Challenges Faced by Cadets in Applying Master Class Knowledge Onboard

The challenges cadets faced in applying their Master Class knowledge onboard reflect broader concerns in maritime education and training (MET). As discussed in the literature, MET institutions must continuously evolve to bridge the gap between theoretical instruction and real-world seafaring demands (Phewa, 2021). The following section integrates relevant studies into the findings, reinforcing the significance of addressing these challenges.

Table 2: *Challenges Faced by Cadets*

Themes	**Subthemes**	**Codes**
Gap Between Theory and Practice	- Differences between classroom learning and onboard practices - Adjustment difficulties	- Not all techniques from Master Class are used onboard - Reality onboard is different
Limitations of Classroom-Based Learning	- Lack of hands-on experience before joining the ship - Basic knowledge not being enough	- Difficulty applying theoretical knowledge - Manual calculations are more complex
Environmental and External Factors	- Company priorities (focusing on rating-level tasks) - Effects of virtual learning and pandemic	- Not always on the bridge - Virtual learning caused lack of preparation

Theme 1. Gap Between Theory and Practice

One of the most significant challenges cadets encountered was the disparity between classroom learning and onboard practices. While Master Class provided a strong theoretical foundation, cadets quickly realized that shipboard procedures often differed from what they had learned. This aligns with Suppiah (2007), who emphasized that bridging the theory-practice gap remains a persistent challenge in maritime education, requiring institutions to adopt more experiential learning approaches.

A cadet shared their struggle with this adjustment:

"Not all, and not totally the same ideas and techniques gained in the Master Class were being practiced onboard. There were some practices onboard that were different, which made it quite a challenge for me to adjust."(P1)

Karahalil, Lützhöft, and Scanlan (2024) further support this finding, highlighting that simulator-based training, while effective, cannot fully replicate real-world maritime operations. Cadets often face discrepancies between

simulated training and actual onboard conditions, which require adaptability and problem-solving skills.

Additionally, Meštrović et al. (2024) point out that as the maritime industry moves toward automation, traditional training methods may become outdated, making it even more crucial to align classroom teachings with industry expectations.

Theme 2. Limitations of Classroom-Based Learning

Another major challenge cadets faced was the lack of hands-on experience before joining the ship. While theoretical knowledge provided them with the basics, it was often insufficient when performing real-life tasks, such as manual stability calculations. This is consistent with Kolb's (2014) experiential learning theory, which argues that direct, hands-on experience is essential for knowledge retention and skill mastery.

One cadet described their experience:

"I had to do manual stability calculations onboard, and it was much more complicated than what we learned in the Master Class. There were so many additional factors to consider – compartments, ballast tanks, cargo dimensions, daily consumptions, and soundings. It was overwhelming." (P2)

Another cadet emphasized the struggle of applying theory without prior hands-on exposure:

"I only had theoretical knowledge, and I didn't have the experience. Thus, I had trouble figuring out how to apply what I learned." (P4)

This finding is supported by Simanjuntak, Rafli, and Utami (2024), who explored cadets' post-internship perspectives and found that many maritime students struggled with the transition from theoretical to practical application due to limited hands-on training opportunities. They emphasized the need for MET institutions to integrate more real-world simulations and onboard exposure into curricula.

Additionally, Creswell and Poth (2016) highlight in their qualitative research on learning methodologies that maritime education should adopt a problem-based learning (PBL) approach, where cadets engage in realistic problem-solving scenarios before stepping onboard.

Theme 3. Environmental and External Factors

Beyond curriculum-related challenges, cadets also faced external factors that affected their ability to apply what they had learned. Some companies prioritized deck cadets for rating-level tasks, limiting their exposure to navigation and bridge operations. This issue was also identified in the study by Saile et al. (2017), which found that academic performance among maritime students is significantly influenced by external stressors, including shipboard hierarchy and operational constraints.

One cadet explained their frustration:

"We are not always at the bridge to study and apply the knowledge we gained from Master Class. Our company focuses more on rating-level tasks, so it was difficult. But when I did have bridge duty, I was able to use what I learned." (P6)

Similarly, Lucky et al. (2015) examined the personal problems of maritime students and found that cadets often struggle to balance expectations set by their companies with their academic preparedness. This misalignment can lead to difficulties in skill application and professional development.

Furthermore, the impact of virtual learning due to the pandemic emerged as another challenge:

"I was not well-prepared during my first contract, especially on bridge equipment, because my class was virtual and got delayed for more than a year before I got onboard."(P7)

Cadets' experiences highlight the need for MET institutions to enhance practical training, incorporate more immersive learning experiences, and ensure that students are better prepared for real-world applications. As Drake and Reid (2021) suggest, a systematic review of MET curricula can help institutions identify gaps and implement evidence-based improvements.

The findings, supported by existing literature, emphasize the importance of aligning MET curricula with real-world maritime operations. Challenges such as the gap between theory and practice, limitations of classroom-based learning, and external factors like company policies and the pandemic underscore the need for more hands-on training, problem-based learning approaches, and industry collaboration.

Addressing these challenges will better equip future maritime officers with the skills, adaptability, and confidence needed to succeed at sea.

How Cadets Addressed the Challenges Onboard

Cadets employed various strategies to overcome the challenges they faced when applying their Master Class knowledge onboard. These strategies can be grouped into three main themes: active learning and self-initiative, seeking guidance from experienced crew members, and resilience and mindset adaptation.

Table 3: *How Cadets Addressed*

Themes	**Subthemes**	**Codes**
Active Learning and Self-Initiative	- Reading manuals and studying independently - Learning through mistakes	- Constant learning through manuals - Studying more to gain competence
Seeking Guidance from Experienced Crew	- Asking officers and crew for advice - Communicating with training officers	- Asking superiors about proper navigation - Learning from officers' guidance
Resilience and Mindset Adaptation	- Developing confidence through experience	- Making mistakes as part of learning

	- Relying on faith and perseverance	- Praying for strength to overcome challenges

Theme 1. Active Learning and Self-Initiative

One of the most common ways cadets addressed their challenges was through self-learning and independent study. Many took the initiative to read manuals, study their notes from Master Class, and actively seek knowledge to enhance their understanding of onboard operations.

A cadet shared:

"By constant learning, especially reading manuals. I also ask and gather relevant information regarding proper navigation and watchkeeping from my superiors and officers."(P1)

Another cadet emphasized that mistakes are part of learning:

"As a cadet, asking is our compass onboard. You have to ask so you will learn. Sometimes when things don't work well, you have to make a mistake so you will learn. My captain once told me, 'You have to make more mistakes so you will learn." (P2)

This idea of learning through experience isn't new. Educational psychologist David Kolb (1984) describes this process in his Experiential Learning Theory, which explains how people learn best by actively engaging in real-world situations, reflecting on their experiences, and making adjustments. Similarly, Biggs (1999) emphasizes that students who take control of their learning develop deeper understanding and competence.

Theme 2. Seeking Guidance from Experienced Crew

Cadets recognized that experience is one of the best teachers, and they actively sought guidance from officers, senior crew members, and training officers to bridge the gap between theory and practice.

One cadet described their approach:

"In addressing these challenges, you have to explore how things work onboard. You have to ask the officers or any of the crew how it is done."(P2)

Another cadet emphasized the importance of mentorship:

"By communicating through my Training Officer, I addressed my questions and confusion through him, and they were answered."(P5)

The importance of mentorship has been widely recognized in education and training. Psychologist Lev Vygotsky (1978) introduced the concept of the Zone of Proximal Development (ZPD), which explains that learners achieve higher levels of understanding when they have guidance from more knowledgeable individuals. In simple terms, cadets learn faster and more effectively when they have mentors to guide them.

This is especially true in maritime training, where knowledge isn't just about memorizing procedures—it's about understanding how things work in real-world situations. Research by Hanzu-Pazara et al. (2008) found that cadets who actively engaged with officers and crew members were more confident and better prepared for their responsibilities. This aligns with the experiences of our cadets, who relied on their seniors to bridge the gap between theory and practice.

Theme 3. Resilience and Mindset Adaptation

Aside from technical learning, cadets also relied on personal resilience, determination, and even faith to help them overcome challenges. Some mentioned that confidence grows over time, while others highlighted the importance of inner strength.

A cadet reflected on this experience:

"If my work is on the deck, I always ask my seniors about the work that I am assigned to. Then if I'm on duty on the bridge, my notes from Master Class are very helpful. But most importantly, I pray to God to give me strength to survive everyday life onboard as a cadet."(P6)

Another cadet emphasized self-reliance:

"No one will teach you the learning you need but your own self. Through dedication, study the things you don't know to become competent."(P7)

Resilience is one of the most important qualities a seafarer can have. Studies by Fletcher and Sarkar (2013) show that resilient individuals are better at handling stress, adapting to difficult situations, and staying motivated despite challenges. This is particularly relevant for cadets, who must adjust to an entirely new environment at sea.

Similarly, Goleman (1995) highlights that emotional intelligence—including self-awareness and perseverance—is just as crucial as technical knowledge in high-pressure careers like maritime work. In line with this, research by Alderton et al. (2004) found that cadets who developed a growth mindset—viewing challenges as opportunities to improve—were more successful in transitioning from classroom learning to onboard duties.

Cadets tackled their challenges through a mix of self-initiative, seeking mentorship, and building resilience. Their experiences highlight the importance of continuous learning, asking for guidance, and developing the right mindset to navigate life at sea.

By fostering these qualities, maritime education can better equip cadets to not just survive but thrive onboard.

CONCLUSIONS AND RECOMMENDATIONS

This study explored the experiences of maritime cadets from Palompon Institute of Technology in applying what they learned from the Master Class subject during their shipboard training. While the Master Class provided important theoretical knowledge—particularly in navigation, stability, and ship operations—cadets still encountered a noticeable gap between classroom learning and actual shipboard practices. They reported that while they were able to answer questions and perform basic tasks using the knowledge gained, the realities on board were often different from what they had been taught. The main challenges included the mismatch between classroom instruction and onboard procedures, limited hands-on experience, and external factors such as company-specific protocols and disruptions due to the pandemic. Despite these challenges, cadets adapted by engaging in self-study, seeking mentorship from experienced crew, and developing resilience. These findings highlight the need for maritime education to evolve beyond theoretical instruction and incorporate more practical,

immersive experiences that help cadets transition more effectively to the working environment at sea.

Recommendations

To better prepare cadets for shipboard life, several improvements to maritime education were recommended. Maritime institutions should develop new integrated subjects that combine key areas such as navigation, stability, meteorology, and cargo handling into scenario-based courses that reflect real-world operations. These subjects should be introduced progressively across academic levels, allowing cadets to build knowledge and skills over time. Strengthening collaboration between schools and shipping companies was also vital. This can be achieved through structured feedback systems, regular industry advisory panels, and real-time communication platforms to monitor and improve cadet performance during training. Course packages should include realistic case studies, simulation exercises, and multimedia resources that demonstrate the practical application of theory. A structured pre-embarkation program was recommended, offering cadets intensive hands-on workshops that simulate shipboard tasks and decision-making. Emphasis should be placed on experiential learning approaches such as increased use of simulators and role-playing activities that mirror shipboard dynamics. Additionally, programs that support psychological preparedness—focusing on resilience, communication, and coping strategies—were essential for helping cadets adjust to the demands of life at sea. Finally, a dynamic and responsive curriculum review process should be established to ensure that maritime training remains aligned with current industry needs and evolving practices.

FURTHER STUDY

This study opens up several promising areas for future research. Long-term studies that follow cadets through their education and into their professional careers could offer deeper insight into how integrated learning affects long-term competence and career progress. Comparative research between different maritime institutions would help identify the most effective educational practices for bridging the gap between theory and practice. Further investigation into the role of digital technologies, including virtual reality and high-fidelity simulators, could help determine how these tools impact preparedness and how they should be balanced with physical training. Additionally, exploring the psychological dimension of cadet training—such as stress management, adaptability, and emotional adjustment to shipboard life—could lead to better support systems for young seafarers. Finally, studying the effects of mentorship and hands-on learning on cadet performance and confidence could help improve training models. These research directions aim to support ongoing improvements in maritime education and ensure cadets were fully prepwered for the demands of life at sea.

ACKNOWLEDGMENT

I would like to express my heartfelt appreciation to the maritime cadets who generously shared their lived experiences, offering valuable insights that shaped the core of this study. Gratitude is also extended to the seafaring professionals and shipboard personnel whose perspectives helped illuminate the realities of applying classroom knowledge in real-world maritime operations. To everyone who provided support, encouragement, or inspiration throughout this journey—your contributions, whether direct or indirect, are deeply appreciated.

REFERENCES

Braun, V., & Clarke, V. (2006). Using thematic analyswas in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Drake, S. M., Reid, J. L., & Savage, M. J. (2021). Rethinking Systematic Literature Reviews as the Gold Standard for Interdwasciplinary Topics. Education Thinking, 1(1), 27–42. https://analytrics.org/article/mapping-the-contours-of-the-research-on-learning-to-teach-with-technology-clusters-categories-and-mwassing-trajectories/

Karahalil, M., Lützhöft, M. & Scanlan, J. Factors impacting curricula in maritime simulator-based education. *WMU J Marit Affairs* (2024). https://doi.org/10.1007/s13437-024-00351-8

Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.

Lucky, E. O., Olaniyi, F. A., Norrwas, K. Y., Olalekan, O. P., Ayodeji, Y. A., & Caiga, B. T. (2015). Personal Problems and Coping Mechanwasms of NIMASA Scholars in Lyceum International Maritime Academy. Asia Pacific Journal of Maritime Education, 1(2).

Meštrović, T., Pavić, I., Maljković, M., & Androjna, A. (2024). Challenges for the Education and Training of Seafwerers in the Context of Autonomous Shipping: Bibliometric Analyswas and Systematic Literature Review. Applied Sciences, 14(8), 3173.

Phewa, N.C. (2021). Maritime Education and Training (MET) Curriculum Challenges in the Twenty-First Century. In: Bauk, S., Ilčev, S.D. (eds) The 1st International Conference on Maritime Education and Development. Springer, Cham. https://doi.org/10.1007/978-3-030-64088-0_15

Saile, P. J., Daan, J. A., Briones, E. B., Tabotabo, J. E., Ramo, C. M., & Canini, N. D. (2017). Stress, Coping Strategies, and Academic Performance of Maritime Students. Journal of Multidwasciplinary Studies, 6(1), 74-92. doi:

Simanjuntak, M. B., & Barus, I. R. G. (2024). Environmental Integration in Maritime Education: A Holwastic Approach. Journal of Biological Education Indonesia (Jurnal Pendidikan Biologi Indonesia), 10(2), 366-373.

Simanjuntak, M. B., Rafli, Z., & Utami, S. R. (2024). Enhancing Global Maritime Education: A Qualitative Exploration of Post-Internship Perspectives and Prepweredness among Cadets. Journal of Education and Learning (EduLearn), 18(4), 1134-1146.

Suppiah, R. (2007). Bridging the Gap between Theory and Practice in the Maritime Environment: Implications for Educators. *Maritime Studies*, *2007*(153), 17–20. https://doi.org/10.1080/07266472.2007.10878847