STUDENT READINESS AND CHALLENGES IN THE ONLINE MARITIME ENGLISH LEARNING: VOICES OF MANAGEMENT LEVEL SEAFARERS

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Abstract

The increasing adoption of blended learning in maritime education and training has opened up new opportunities for students to learn, including in the area of maritime English. This study, involving 100 deck and engine officers enrolled in a management-level Seafarer Upgrading Program, aimed to investigate their readiness for online maritime English learning, identify the challenges they face, and their willingness for future online maritime English learning. A quantitative analysis of online learning readiness was conducted using a previously validated questionnaire. The results indicated an overall readiness level of 4.14 out of 5, which falls within the high category. Individual differences were further explored and analyzed. Qualitative analysis revealed four categories of challenges faced by learners: technical challenges, learning environment-related challenges, learning process challenges, and self-control challenges. While the highest level of readiness was found in learners' motivation for online learning, they still encountered frequent connectivity issues. The study provides insights for educational development to continue innovating in online maritime English learning. Participants expressed their willingness and positive perceptions of blended learning but emphasized the need for careful consideration of online and face-to-face instruction duration.

Keywords – blended learning, maritime English, online learning, learner readiness, challenges

Introduction

Effective communication on board a ship has an important role in ensuring safe, efficient, and smooth vessel' operations. English, as the international language at sea, is essential for seafarers from diverse backgrounds to communicate effectively (IMO, 2016). To navigate increasingly complex ship operations, seafarers are required to possess strong maritime English skills, covering technical terminology, operational procedures, and emergency communication protocols.

In today's era, technological advancements have opened doors to online learning, including maritime English. Online learning in maritime education and training has been in practice since 2015 in the form of blended learning, the combination of online and face-to-face instruction (IMO, 2015). Indonesian maritime education and training institutions have begun implementing this model since the issuance of regulations on distance learning guidelines (HRDA, 2021). This regulation applies to all maritime education and training programs, including the Seafarer upgrading program, a non-formal education and training pathway under the Ministry of Transportation (MOT, 2013). This program is designed for those with sailing experience to upgrade their qualifications to a higher level, enabling them to assume higher-level positions and responsibilities on board vessels. Blended learning is a suitable method for this type of education, allowing participants to complete online learning without physically attending the campus, followed by practical sessions at the campus.

While offering flexibility in learning, the online and blended learning implementation in maritime English

education inevitably raises several questions, including the level of students' online learning readiness, the challenges they face, and their expectations, particularly for those at the management level, the highest level of shipboard positions. This study aims to investigate the specific challenges and opportunities associated with online maritime English learning for management-level seafarers enrolled in upgrading programs at BP3IP. Through the lens of these seafarers' experiences, the study will address the following research questions:

1. What is the level of readiness among management-level seafarers for online maritime English learning?
2. What are the key challenges faced by management-level seafarers in online maritime English learning environments?
3. How can online maritime English learning be improved for the needs of management-level seafarers?

By exploring the readiness, experiences, and perspectives of management-level seafarers, this study offers valuable insights for educators and administrators of seafarer upgrading programs. The findings can inform the development and improvement of online maritime English programs, ensuring they are tailored to effectively address the specific needs and challenges of this crucial maritime workforce segment.

Online learning readiness is believed to have a positive impact on students' English learning (Muslimin et al., 2023; Wang et al., 2022; Ismail&Hassan, 2022). Several researchers have developed instruments to assess online learning readiness among students. Yu and Richardson (2015) proposed a framework incorporating four dimensions: social competencies with instructors, communication competencies, social competencies with classmates, and technical competencies. Hung et al. (2010) identified five factors influencing online learning readiness. Self-directed learning focuses on an individual's confident motivation for learning, internet self-efficacy, online communication self-efficacy, and learner control. These instruments have been employed in various studies to evaluate students' online learning readiness (Engin, 2017; Chung et al., 2019; Wei & Chou, 2020; Prihastiwi, 2021).

Blended learning has gained traction in maritime education. Online learning offers several benefits, including enhanced student performance, increased motivation, and improved autonomous learning and communicative skills (Shevelova-Harkusha, 2021; James et al., 2014; Adnansyah et al., 2022). However, challenges such as limited interaction between teachers and students have also been identified (Avram & Coșofreț, 2020). While blended and online learning in maritime English education has been explored, research specifically focused on management-level seafarers enrolled in upgrading programs remains limited. Investigating their online learning readiness, experiences, and challenges is crucial for tailoring effective training programs that cater to their unique needs.

Methodology

This study used mixed methods to fully explore students' readiness for online learning and the difficulties they encounter when learning maritime English online. Quantitative data were collected through a questionnaire to assess students' online learning readiness. Open-ended questions were used to collect qualitative data to explore the specific challenges students encounter and their opinions on the continuation of online maritime English learning. Data were collected using a questionnaire. Demographic data were collected using a demographic data form, online learning readiness was assessed using the Online Learning Readiness Scale (OLRS), and online learning challenges were explored through two open-ended questions. To minimize potential

misunderstandings, the questionnaire was translated into Indonesian.

A self-administered questionnaire was developed specifically for this study which consisted of three sections: demographics, online learning readiness, online learning challenges, and willingness for future implementation. The demographic section collected background information of the participants. The online learning readiness section utilized the Online Learning Readiness Scale (SOLR) developed and validated by Hung et al. (2010), which measures students' online readiness across five dimensions: computer/internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. All items were rated on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). To ensure the questionnaire was clear, understandable, and relevant to the target audience, a smaller group of students from that population was involved in a pilot test before administering it to everyone. This pilot test helped assess the questionnaire's effectiveness within the local context. Cronbach's Alpha coefficient was used to assess the reliability of the OLRS section. A coefficient of 0.955, exceeding the recommended threshold of .70 for social science research (Tavakol & Dennick, 2011), indicated the internal consistency and reliability of the scale within the study's context.

A hundred management-level students enrolled in the Deck and Engine Departments of Levels 1 and 2 in the seafarer upgrading program at Jakarta Merchant Marine College became the participants of this study. Data collection for this study occurred from March to May 2024 through a survey hosted on Google Forms. The survey link was distributed to the participants through their designated class representatives, ensuring confidentiality and anonymity.

The online learning readiness survey data, containing numerical information, was analyzed using both SPSS version 26.0 and Microsoft Excel. This analysis involved calculating descriptive statistics, including means and standard deviations, to get a picture of students' overall online learning readiness across the five dimensions measured by the OLRS. Additionally, The Kruskal-Wallis test was used to analyze whether online learning readiness scores differed significantly across various demographic categories. Thematic analysis techniques were applied to analyze data from the open-ended questions. A coding scheme was developed to categorize recurring themes and challenges found in student responses. This involved reviewing each response and identifying key concepts and themes. These themes were then organized into a coherent structure to explore the nature of the challenges faced by students in online maritime English learning.

Finding and Discussion

The respondents in this study were management-level seafarers enrolled in the Seafarer Upgrading Program at Jakarta Merchant Marine College, Indonesia. They came from both the deck and engine departments. Seafarers who participate in this program must have at least 2 years of sailing experience before proceeding to the next level. This means that those at the management level are undoubtedly professional seafarers with at least 10 years of sailing experience.

The demographic data reveals a group of experienced male seafarers at the management level. The majority of respondents are between 31 and 40 years old and earn a monthly salary of over 15 million rupiah. This suggests a strong financial background that supports the feasibility of online learning. Additionally, all respondents own smartphones, and 83% have access to a PC or laptop, indicating adequate device availability for online participation. They prefer to use smartphones with personal mobile data for

internet access. The most respondents are lack of prior online learning experience(72%).

Table 1. Demographics of the respondents

Variable	Choices	F	%	Cum %
Age (year old)	21 - 30	27	27	27.0
	31 - 40	44	44	71.0
	41 - 50	29	29	100.0
Gender	Male	100	100	100.0
	Female	0	0	100.0
Training Program	Class I	41	41	41.0
	Class II	59	59	100.0
Sailing Experience (year)	1 - 10	62	62.0	62.0
	11 - 20	27	27.0	89.0
	21 - 30	10	10.0	99.0
	>30	1	1.0	100.0
Salary per Month (million)	0 - 5	6	6.0	6.0
	5 - 10	17	17.0	23.0
	10 – 15	24	24.0	47.0
	>15	53	53.0	100.0
Online learning experience	No	72	72.0	72.0
	Yes	28	28.0	100.0
Having a PC or Laptop	No	17	17.0	17.0
	Yes	83	83.0	100.0
Having a smartphone	No	0	0	0.0
	Yes	100	100	100.0
Device of online learning	Computer	31	31	31.0
	Smartphone	64	64	95.0
	Tablet	5	5	100.0
Access to internet	Personal Mobile Data	66	66	66.0
	Wi-Fi (H)	7	7	73.0
	Wi-Fi (O)	27	27	100.0

Students' Readiness for Online Maritime English Learning

Five dimensions with 18 items were employed to assess students' online learning readiness. Students who scored at least 4 on a five-point Likert-type scale on the online readiness measurement were considered online-ready (Holsapple & Lee-Post, 2006). To know their online readiness level, every dimension was explored.

The respondents showed a moderate to high level of computer/internet efficacy with a mean score of 4.16. They were comfortable using search engines like Google and Yahoo to gather information online proved by the highest mean score in CIS3 (*I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning*). However, they lacked confidence in handling tasks involved in running online learning platforms. as shown in CIS 2 (*I feel confident in my knowledge and skills of how to manage software for online learning*).

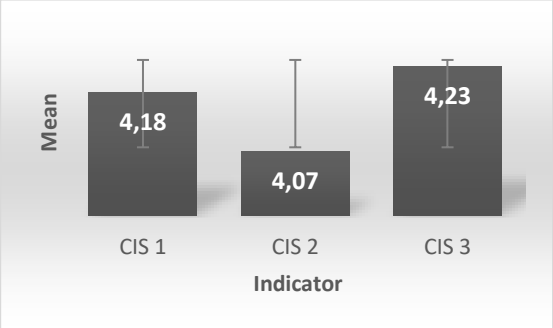

Figure 2. Mean of Computer/ Internet Self-Efficacy

The respondents' readiness for learner control (in an online context) was not as strong as in other dimensions, with a mean score of 3.99. The lowest score within this dimension was for LC2 (*I am not distracted by other online activities when learning online (instant messages, Internet surfing*)), indicating that they still found it challenging to fully avoid online distractions while learning online. Maritime English. However, they could manage their Maritime English learning progress, as evidenced by the highest score within this dimension in LC1(*I can direct my own learning progress*).

Figure 3. Mean of Learner Control

The respondents showed a moderate level of self-directed learning readiness, with a mean score of 4.17. SDL4 (*I set up my*

learning goals) received the highest score within this dimension, suggesting that the respondents could set their own learning goals. However, they scored lower on SDL1 (*I carry out my own study plan*), indicating a lack of self-sufficiency in implementing their learning plans.

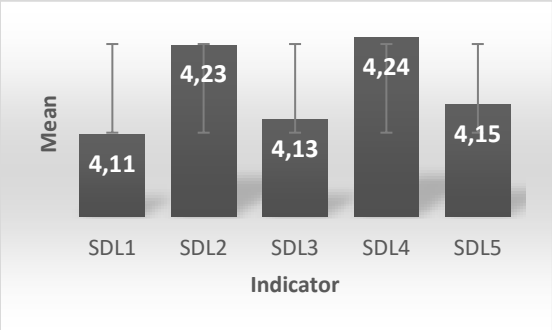

Figure 4. Mean of Self-Directed Learning

The respondents showed a moderate level of confidence in communicating online, with a mean score of 4.00. OCS2 (*I feel confident in expressing myself (emotions and humor) through tex*t) received the lowest score (mean: 3.78) within this dimension and overall, indicating a lack of confidence in expressing themselves through text. This could be attributed to their limited experience with online communication in English learning, as 72% of respondents had never taken an online class before. Despite this, they felt confident using online tools for communication as shown by OCS1 (*I feel confident in using online tools (email, discussion) to effectively communicate with others*), likely due to their familiarity with email and messaging apps in everyday life.

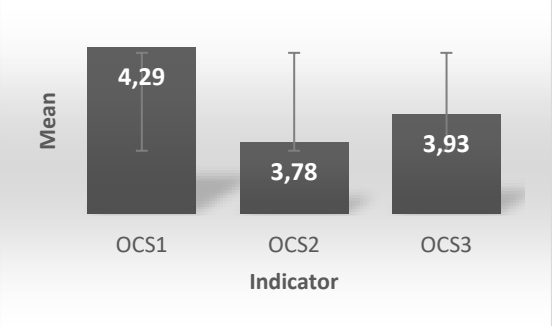

Figure 5. Mean of Online Communication Self-Efficacy

The respondents demonstrated strong motivation for learning Maritime English online, with the highest score (mean: 4.28). MFL3 (*I improve from my mistakes*) showed the highest score. However, they scored lower on MFL 1 (*I am open to new ideas*). It indicated a tendency to focus on correcting mistakes rather than embracing new ideas.

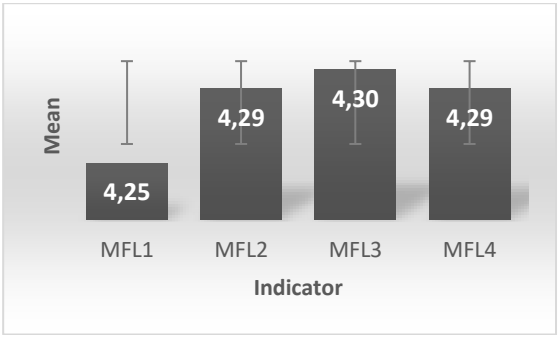

Figure 6. Mean of Motivation for Learning

Among all dimensions, the highest score (mean: 4.28) came from the dimension of Motivation for Learning (in an online context). This suggests that despite the shift to online learning, students maintain a strong motivation to learn. As evidenced by the demographic data, nearly all respondents own a smartphone, and 83% own a computer or laptop. This demonstrates their commitment to participate in online Maritime English classes.

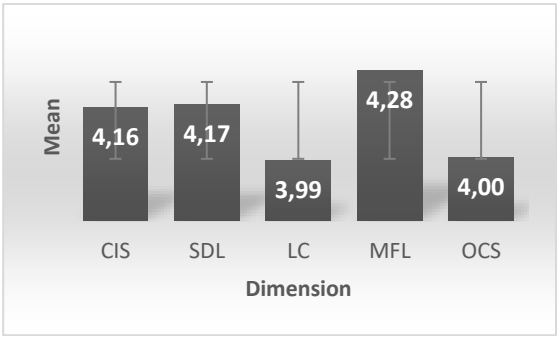

Figure 7. Mean of Online Learning Readiness

The second highest score was in the self-directed learning dimension, followed by computer/internet self-efficacy, and online communication efficacy, and the lowest score was in the learner control (in an online

context) dimension. The mean score from all dimensions was 4.14 out of 5. Overall, the readiness of management-level students for online Maritime English learning falls into the online-ready category.

Individual Differences. To explore potential variations in students' readiness the study employed the Kruskal Wallis test and examined differences based on age, class level, and online learning experience. The test revealed no significant difference in overall online learning readiness across age groups. However, students in the 41-50 age range demonstrated the highest readiness level (mean rank: 55.09). This aligns with research by Morin (2019) suggesting that older students possess higher self-efficacy and mental readiness for online classes, leading to greater participation in online learning activities.

The Kruskal Wallis test also indicated no significant difference in online learning readiness between Class 1 and Class 2 students ($p = 0.58$). However, Class 1 students performed a slightly higher readiness level (mean rank: 49.02). It potentially reflects their adaptability and eagerness to embrace new learning approaches as suggested by a study from Özen and Göksel (2023).

The Kruskal Wallis test conducted based on students' online learning experience also showed no significant difference in readiness between those with and without prior online learning experience ($p = 0.67$). Nevertheless, those with prior experience in online learning demonstrated a higher average readiness (mean rank: 52.45), suggesting that exposure to online learning environments fosters self-confidence and adaptability.

Students' Challenges in online maritime English learning

Through the open-ended questions about students' challenges, 100 responses were collected, with 90 responses providing details about the obstacles they faced and 10 responses indicating "no challenges." After reading, coding, and analyzing the responses, five categories of challenges emerged:

Table 1. Challenges in Online Maritime English Learning

Technical (37)	Learning Process (33)	Self-control (12)	Learning environment (14)
Internet connection (30)	Interaction (8)	Lack of self-discipline (3)	Low motivation (5)
No textbook (4)	Assignment (6)	Time management (9)	Lack of teacher presence (9)
Devices for learning (1)	Speaking (15)		
Cost of flow data (2)	Listening (1)		
	Grammar (1)		
	Vocabulary (2)		

Technical Challenges. Technical issues were the most significant challenge reported by 37 respondents. Thirty of them specifically mentioned internet connectivity problems. Considering the demographic data, 66% of the respondents relied on personal data packages to access online learning, which could explain the prevalence of internet-related challenges. Additionally, four respondents mentioned the lack of reference books and textbooks as a barrier to their learning. Other technical challenges included problems with devices and data limitations.

Learning Process Challenges. Thirty-three respondents expressed difficulties with the online learning process itself. These challenges included practicing speaking skills, understanding listening tasks, comprehending grammar and vocabulary, handling the workload, and lacking interaction with teachers and peers. One respondent stated, "*Maritime English is about real-world communication, such as ship to ship or ship to port, online learning may not fully simulate this need*".

Self-Control Challenges. Twelve respondents mentioned self-control as a challenge. They struggled with self-discipline and time management for online learning. Respondents felt that they were

not yet independent in setting up their English learning plans. One respondent stated, "*I find it difficult to manage online learning with other activities at home*," while another responded, "*Sometimes schedule for Zoom meetings overlaps with my work schedule*."

Learning Environment Challenges. Nine respondents identified the lack of teacher presence as a barrier, while five respondents cited low motivation as a challenge. One respondent stated, "*There is no teacher, so there is no one to ask when I have difficulty understanding the material that is uploaded online*."

These findings align with the previous study that highlighted challenges faced by students in online English learning. Zou and Jin (2019) identified challenges faced in online English learning during the COVID-19 pandemic, including health concerns, effectiveness, technical difficulties, learning process issues, self-control, and learning environment. Ninsiana et al. (2022) found digital literacy, focus limitations, and a lack of high-speed internet as challenges for online English learners.

Student's Willingness to the Future Online Maritime English Learning

From the open-ended questions asking about students' willingness to the future online maritime English, out of 100 responses, 14 respondents expressed that they did not find online learning to be effective and efficient for maritime English due to the need for more face-to-face interaction with teachers and peers, as well as frequent connectivity issues that hindered the learning process.

The remaining 86 respondents, however, perceived online learning as effective and efficient, highlighting the convenience and flexibility it offers. They appreciated the ability to access learning materials anytime, complete assignments from anywhere, and benefit from cost and time savings. Additionally, they highlighted the positive impact of staying current with industry trends, developing digital skills, fostering independence and self-confidence, and expanding their knowledge base.

Respondents also provided valuable suggestions for improvement in online maritime English learning. These suggestions primarily focused on addressing the challenges identified in the previous section and enhancing the overall learning experience.

Regular Online Meetings and Collaborative Activities. Seven respondents emphasized the importance of incorporating more regular online meeting sessions and interactive, collaborative activities into online learning. This aligns with the findings of Pham et al. (2014), who suggest that online learning requires discussion forums tailored to learners' needs to compensate for the lack of physical interaction.

Provision of Digital Textbooks and References. Eleven respondents highlighted the need for providing students with accessible digital textbooks and reference materials to support their independent learning. This aligns with the findings of Dewi et al. (2024), who emphasize the importance of e-modules in enhancing student engagement in online ESP learning.

Blended Learning Approach. Thirty-one respondents suggested a blended learning approach that combines online theoretical instruction with face-to-face maritime English practice sessions. This approach aligns with the findings of Klimova (2020), whose case study demonstrated the effectiveness of blended learning in teaching English.

Conclusions

The study found a moderate to high level of overall readiness for online maritime English learning (average score: 4.14 out of 5). Students demonstrated strong motivation to learn (4.28) and possessed the necessary equipment (smartphones, computers/laptops) for participation. However, the area of learner control (in an online learning context) scored the lowest

(3.99), suggesting a need for strategies to help students stay focused and avoid distractions. Interestingly, age groups showed no significant difference in readiness, but students in the 41-50 age range displayed the highest average, potentially reflecting their stronger self-efficacy and mental readiness for online learning environments. Similarly, class level did not significantly impact readiness, although Class 1 students showed a slightly higher average. Prior online learning experience also did not have a statistically significant impact, but those with experience demonstrated slightly higher readiness, suggesting that familiarity with the online environment fosters confidence and adaptability.

The study identified five main categories of challenges faced by students: Technical Challenges: Internet connectivity issues were the most prominent concern, highlighting the need for reliable internet access solutions. Limited access to reference materials and device/data limitations were also reported. Learning Process Challenges: Difficulties with practicing speaking skills, understanding listening tasks, grasping grammar and vocabulary, managing the workload, and lacking interaction with teachers and peers were identified. One key point raised is the challenge of replicating real-world maritime communication scenarios in online learning environments. Self-Control Challenges: Self-discipline and time management were obstacles for some students, indicating a need for strategies to promote focused online learning. Learning Environment Challenges: The lack of teacher presence and low motivation were concerns for a smaller group of students. These findings emphasize the importance of fostering a sense of connection and addressing motivational factors in online learning.

A significant portion of respondents (86%) viewed online learning positively, valuing its convenience and flexibility. They appreciated the ability to access materials anytime, complete assignments remotely, and benefit from cost and time savings. Additional advantages included staying updated with industry trends, developing digital skills, fostering independence and self-confidence, and expanding their knowledge base. Valuable suggestions were provided to improve online maritime English learning: Regular Online Meetings and Collaborative Activities: Incorporating more regular online meetings and collaborative activities can address the lack of physical interaction and create a more engaging learning environment. Provision of Digital Textbooks and References: Providing accessible digital resources can empower students for independent learning. Blended Learning Approach: Combining online theoretical instruction with face-to-face practice sessions can leverage the strengths of both modalities and cater to different learning styles.

This study has limitations. The research focused on students' perspectives, and it would be beneficial to include the perspectives of instructors and maritime institutions in future studies. Additionally, the sample size was relatively small (100 respondents). Future research could involve a larger and more geographically diverse sample to enhance generalizability. The study focused on self-reported data, and incorporating objective measures of learning outcomes could strengthen future research. Furthermore, the data distribution might not have been perfectly normal, justifying the use of non-parametric statistical tests.

Despite these limitations, this study provides a valuable foundation for further research on online maritime English learning. Future research could explore the effectiveness of various online learning strategies and blended learning models in improving maritime English proficiency. Investigating the impact of online learning on students' self-efficacy, motivation, and long-term learning outcomes would also be valuable. Ultimately, such research can guide institutions in developing effective

online learning programs that prepare seafarers for success in the maritime industry.

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