

A Mixed-Methods Needs Analysis of Maritime English Competencies: Aligning Maritime Transportation Management Students With Industry Expectations

Khafifah*, Nurysam, Ratno, Nurlely Nasaruddin

Politeknik Pelayaran Barombong, Indonesia

Email: khafifah85@gmail.com*

Abstract

This research examines the English language competencies required by industry stakeholders in the *Maritime Transportation Management* sector. A mixed-methods approach with a convergent design was employed, integrating quantitative and qualitative data to obtain a comprehensive understanding of industry needs. Data were collected through questionnaires, semi-structured interviews, and document analysis, involving 14 respondents, comprising maritime industry practitioners and representatives of educational institutions. The data were analyzed using descriptive statistics and thematic analysis through methodological triangulation. The findings indicate that speaking and listening skills are the primary competencies required in *Maritime English*, particularly for operational communication and workplace coordination. In addition, reading and writing skills are also considered essential for understanding and producing technical documents and professional correspondence. Mastery of *maritime terminology* and contextual translation skills is regarded as an important supporting competency, ensuring information accuracy and preventing miscommunication in professional settings. Therefore, a reorientation of the *Maritime English* syllabus toward a more contextual, applied, and professionally competency-based approach is necessary to enhance the readiness of *Maritime Transportation Management* graduates to meet the demands of the global maritime industry.

Keywords:

maritime english, need analysis, and maritime transportation management.

INTRODUCTION

Needs analysis is widely recognized as a foundational component in the development of English for Specific Purposes (ESP) curricula, as it ensures alignment between instructional content, learners' needs, and professional practice. In ESP theory, needs analysis provides empirical grounding for curriculum design by identifying the communicative competencies required in specific occupational contexts (Hutchinson & Waters, 2010; Dudley-Evans & St John, 2013). This function is particularly critical in Maritime English, which is often regarded as one of the most distinctive ESP domains due to its reliance on standardized communication, safety-critical discourse, and international regulatory frameworks (Dirgeyasa, 2018; Bocanegra-Valle, 2012). Through systematic needs analysis, educational institutions can reduce the persistent mismatch between graduate competencies and the communicative demands of the maritime workplace (Basturkmen, 2010).

In the global maritime industry, English serves as the primary working language for ship operations, port activities, logistics coordination, and maritime documentation. International organizations such as the International Maritime Organization emphasize the role of English in ensuring safety, efficiency, and interoperability across multinational crews and institutions

(Acar & Varsami, 2021). Nevertheless, Maritime English has predominantly focused on operational shipboard communication, and previous studies have examined seafarers' needs for Maritime English; limited attention has been paid to students in maritime transportation management programs, whose communicative demands differ significantly from those in shipboard contexts. Empirical studies in Indonesia reveal that most needs analyses have concentrated on Nautical and Marine Engineering programs, emphasizing navigational communication, safety procedures, and the use of Standard Marine Communication Phrases (SMCP) (Ahmed Alsamadani, 2017; Dirgeyasa, 2018; Fauziningrum & Nicolas, 2019; Sulistiono et al., 2021; Hafita et al., 2024). As a result, the language needs examined in prior research remain confined mainly to onboard operational contexts.

By contrast, Maritime Transport Management represents a non-operational maritime domain with substantially different communicative requirements. Graduates are expected to perform administrative, managerial, and commercial functions that demand proficiency in port operations, logistics coordination, shipping documentation, and professional correspondence. However, existing Maritime English curricula have not sufficiently addressed these requirements. Marselia & Hartono (2017) report that Maritime English syllabi in Indonesia remain strongly oriented toward Nautical and Engineering students and rarely incorporate the discourse genres, terminology, and professional communication practices relevant to maritime transport management, logistics, and port administration.

Recent studies further highlight the need for Maritime English instruction to address professional language use in port authorities and shipping companies. Rahmawati et al. (2023) emphasize that graduates are required to interpret maritime regulations, handle shipping documents, and communicate effectively with clients and international stakeholders. Within vocational higher education, alignment between graduate competencies and industry needs is widely regarded as a prerequisite for employability and workforce readiness (Sari et al., 2021; Oksavik et al., 2022). However, several studies indicate that Maritime Transport Management programs often rely on general English or ship-oriented Maritime English instruction, resulting in a persistent gap between curricular content and workplace communication demands (Simanjuntak et al., 2025).

Despite the established importance of needs analysis, research focusing on English requirements for maritime management roles in Indonesia remains limited. Studies have generally focused on seafaring professions, leaving a lack of research on the linguistic needs of land-based maritime sectors such as logistics and shipping management. As the Indonesian maritime industry expands and integrates into global logistics networks, demand for English-language proficiency continues to grow. However, existing curricula still do not fully equip Maritime Transportation Management students for the linguistic challenges they will face in professional settings.

Needs analysis provides an evidence-based framework for addressing this gap. In ESP research, the integration of Target Situation Analysis (TSA) and Present Situation Analysis (PSA) enables a systematic comparison between the communicative competencies required in professional contexts and learners' existing language abilities (Hutchinson & Waters, 2010; Dudley-Evans & St John, 2013). Wahl & Kongsvik (2018) argue that training programs lacking such analysis risk misalignment with occupational realities. Although TSA–PSA frameworks have been widely applied across various ESP fields, their use in Indonesian maritime education

remains limited, particularly in Maritime Transport Management and in incorporating industry perspectives as a primary basis for curriculum development.

Therefore, this study aims to address this gap by conducting a comprehensive needs analysis of Maritime English for the Maritime Transport Management program. The study involves two key stakeholder groups: maritime industry practitioners, as end users of graduates, and higher education institutions, as curriculum providers. By integrating industry-based TSA with curriculum-oriented PSA, this research identifies essential communicative competencies, evaluates the relevance of existing syllabi, and formulates empirically grounded recommendations for ESP curriculum development (Hutchinson & Waters, 2010; Wahl & Kongsvik, 2018).

The novelty of this study lies in its explicit focus on the non-operational maritime sector and its systematic integration of industry perspectives into Maritime English needs analysis. Unlike previous studies that primarily emphasize shipboard communication, this research foregrounds administrative, managerial, and documentary language demands in maritime transport management. In doing so, it contributes new empirical insights to ESP and Maritime English and offers a practical framework for developing more functional, context-sensitive, and industry-aligned curricula (Basturkmen, 2010; Meiyanto & Huda, 2022). Ultimately, the findings are expected to support the preparation of Maritime Transport Management graduates who are better equipped to meet the communicative challenges of the global maritime industry.

RESEARCH METHOD

This study employed a mixed-methods approach (Creswell, 2009). To develop a comprehensive understanding of the needs for Maritime English in the context of Marine Transportation Management. Mixed methods were selected because they enable researchers to integrate statistical trends with detailed explanations, producing a more comprehensive and validated interpretation of the research problem. Specifically, this study employed a convergent mixed-methods design, in which quantitative and qualitative data were collected concurrently, analyzed separately, and then integrated during interpretation. Participants were selected through purposive sampling and included maritime education administrators and industry practitioners with direct involvement in maritime education, port operations, logistics, and marine transportation management. The sample size ($n = 14$) is methodologically justified, as ESP needs analysis prioritizes information-rich informants who possess contextual and professional expertise rather than large respondent numbers, and such sample sizes are widely accepted in mixed-methods and qualitative-oriented ESP studies, where depth, relevance, and contextual accuracy are central considerations. Data were collected concurrently through questionnaires and semi-structured interviews. The questionnaire used in this study is considered valid and reliable for Maritime English needs analysis based on systematic instrument development, expert validation, and internal consistency review. Validity is ensured by alignment with the ESP framework, which incorporates Target Situation Analysis (TSA) and Present Situation Analysis (PSA), and by expert confirmation of the item's relevance to maritime workplace communication. Reliability is demonstrated by consistent item responses and convergence with interview findings through triangulation, which is appropriate for exploratory, context-based needs analysis without requiring statistical reliability coefficients such as Cronbach's Alpha. Quantitative data were analyzed using descriptive statistics,

including frequencies, percentages, means, and standard deviations, to identify dominant patterns in language needs. Qualitative interview data were subjected to thematic analysis, comprising transcription, open coding, theme development, and analytical interpretation, to uncover recurring communicative practices and contextual language challenges (Miles et al., 2014). The final stage involved triangulation of quantitative and qualitative findings. Results from descriptive statistical analysis were compared with themes emerging from interviews to identify convergence, divergence, and complementary insights. This integration enhanced the validity of findings and ensured that the identified Maritime English needs reflected not only perceived importance but also authentic communicative practices in the maritime professional context.

RESULT AND DISCUSSION

Industry-Perceived Need for English Competence in Maritime Transportation Management

The survey results indicate that industry practitioners in the maritime transportation management sector consider English competence essential. As shown in Table 1, 69.23% of respondents rated English as highly needed, whereas 30.8% rated it as needed. Only one respondent (7.7%) viewed it as moderately needed, and none rated it as slightly needed or not needed. These findings reflect a broad consensus that English proficiency is a core requirement in operational, administrative, and communicative functions across maritime organizations.

Table 1. Table of Industry-Perceived Need for English Competence category

No	Needs Category	Frequency	Percentage	Valid Percentage	Cumulative Percent
1	Highly needed	9	69.2	69.2	100.0
2	Needed	3	23.1	23.1	30.8
3	Moderately Needed	1	7.7	7.7	7.7
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

Qualitative data from interviews further corroborate these findings. Industry practitioners emphasized that English is a primary requirement for employment at international maritime companies and a skill that cannot be acquired easily without sustained learning and practice. In operational contexts, particularly in port management and regulatory functions such as Post State Control (PSC), respondents highlighted that limited English proficiency can significantly hinder task execution, especially when interacting with foreign vessels and international stakeholders.

The findings confirm that English is a core competency in the maritime sector, aligning with the principles of English for Specific Purposes (ESP), which emphasize the importance of Target Situation Analysis (TSA) and Present Situation Analysis (PSA) for aligning instruction with workplace needs (Hutchinson & Waters, 2010; Dudley-Evans & St John, 2013). Practitioners affirmed that English is needed for communication, documentation, compliance, and operational coordination.

These findings align with previous studies Rahmawati et al. (2023), who identified English as the most widely used and essential language in global shipping. Simanjuntak et al. (2025) also note that Maritime English improves operational communication and reduces the risk of miscommunication. Similarly, Demydenko (2012), who argues that Maritime English is the lingua franca of international seafaring, facilitating communication among ships, ports, crews, and regulatory authorities and thereby reducing the risk of miscommunication in multicultural maritime environments. The strong emphasis on contextual, job-aligned English competence suggests that general English courses alone are insufficient for maritime professional training.

Collectively, these results show that English proficiency is not only beneficial but foundational for graduates seeking to enter the maritime sector. The industry's expectations underscore the need for training programs to prioritize English skills aligned with real workplace demands.

Use of English in the Workplace

The findings indicate that English is used in various professional contexts within Maritime Transportation Management, particularly in international-oriented workplaces. Interview data reveal that English is essential for coordinating services for foreign vessels, communicating with international agents, and supporting daily port operations.

English is used in a variety of workplace contexts, though its frequency varies across departments. Survey data show that 38.5% of respondents sometimes use English at work, while 30.8% use it fairly often, and 30.8% use it rarely. This variation reflects diverse job responsibilities within maritime operations. These results suggest that English is not uniformly required across all job units, yet it remains relevant in specific operational and administrative tasks.

Table 2. Table of Frequency: The Use of English in the Workplace

No	Needs Category	Frequency	Percentage	Valid Percentage	Cumulative Percent
1	Very Frequently	0	0	0	0
2	Frequently	4	30.8	30.8	30.8
3	Occasionally	5	38.5	38.5	38.5
4	Rarely	4	30.8	30.8	30.8
5	Never	0	0	0	0
Total		13	100.0	100.0	

Source: Primary Data Processed, 2026

Interview findings provide a more nuanced picture. Staff at container terminals reported frequent use of English when coordinating with international vessels, drafting operational documents, and communicating with foreign stakeholders. Certain divisions conduct regular English training to support these tasks. By contrast, other units use English only in specific situations, such as radio communication with foreign ships or interpreting system-generated instructions written in English.

Further analysis of work activities shows that the most frequent uses of English involve coordination with international partners and the preparation of documents related to foreign vessels, each reported by 46.2% of respondents. Other activities, such as international email correspondence and report writing, were reported less frequently, while tasks such as contract

negotiation and international presentations were not reported at all.

The combined questionnaire and interview data demonstrate that English use in Maritime Transportation Management is situational, mainly, and task-dependent. Interview findings highlight that units directly engaged with foreign vessels prioritize speaking skills for operational coordination. In contrast, other units rely more on reading and writing skills for document handling and system-based reporting.

These patterns indicate that the use of English in maritime management remains situational. Nevertheless, English is indispensable in tasks requiring cross-border communication, documentation, and compliance with international standards.

The study found that English use is situational but indispensable in cross-border communication, documentation, and operational coordination. This aligns with Sari et al. (2021), who note that English proficiency varies by department and job role. Although not all staff use English daily, tasks involving foreign ships, international cargo, or digital systems require consistent proficiency in English. This aligns with Rahmawati et al. (2023) argument that English is central to coordination among maritime stakeholders.

Thus, English instruction should simulate real workplace conditions, such as email writing, document processing, report preparation, and ship-to-shore communication, to reflect actual usage patterns rather than theoretical proficiency. In conclusion, although English is not used intensively across all work contexts, interview and survey data confirm that it remains a significant professional requirement in key maritime activities. This situational pattern underscores the need for ESP-based English instruction that emphasizes contextualized, task-specific communication aligned with actual workplace demands.

Required English Skills

Communication Skills (Speaking and Listening)

Speaking and listening skills in English communication emerged as the most urgent competency. Industry respondents reported that speaking and listening skills are critical for interactions with foreign crew members, ship agents, and port authorities, as well as for coordinating vessel operations. The findings indicate that speaking and listening skills are perceived as essential communicative competencies in the maritime transportation management sector. In professional practice, oral communication is extensively used in interactions with foreign ship crews, port coordination, cargo reporting, and radio-based operations that require real-time, accurate exchange.

Table 3. Table of Speaking and Listening Skill Needs a category Siklus

No	Needs Category	Frequency		Valid	Cumulative Percent
			Percentage	Percentage	
1	Highly needed	9	69.2	69.2	100.0
2	Needed	2	15.4	15.4	30.8
	Moderately	2			
3	Needed		15.4	15.4	15.4
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

Among the four macro skills, speaking and listening emerged as the highest-priority competencies, with 69.2% of respondents rating them as “highly needed”, while 15.4% considered them needed and 15.4% moderately needed. Interview data further support these results; practitioners explained that oral communication is essential in radio communication, onboard briefing, operational coordination, and direct negotiation with ship officers, and is central to ship-shore coordination, operational briefings, safety reporting, and multilingual interactions. Several interviewees highlighted challenges posed by diverse accents and pronunciation, multilingual environments, and the need for accurate interpretation of operational instructions, underscoring the importance of listening accuracy to avoid misinterpretation during operational exchanges. These two skills were important and also found in the previous Maritime English studies (Aeni et al., 2018; Dirgeyasa, 2018; Ahmmed et al., 2020). Thus, speaking and listening are regarded as foundational competencies for operational efficiency and safety in maritime management.

To further substantiate these findings, the table below presents the gap analysis between the Present Situation Analysis (PSA) and the Target Situation Analysis (TSA) for speaking and listening skills.

Table 4. Table of Gap Analysis of Communication Skill (Speaking and Listening)

No	Language Skill	Present Situation Analysis (PSA)	Target Situation Analysis (TSA)	Gap
1	Speaking and Listening	Opportunities for oral communication practice are limited. Role-play and simulation activities are not yet used consistently.	The industry requires professional oral communication skills, including coordination of port operations, participation in international meetings, and communication via radio, telephone, and email.	Students are not yet accustomed to speaking in operational maritime language or in professional communication.

Source: Analysis of Primary Data, 2026

As illustrated in Table 4, the data analysis indicates a clear gap between the oral communication demands of the maritime industry and students’ current abilities. The PSA shows that opportunities for oral communication practice remain limited, and the use of role-play and simulation activities is not yet consistent. Conversely, the TSA highlights that the industry requires professional communication skills, including operational coordination and technical communication across various media. This discrepancy indicates that students are not yet accustomed to using operational Maritime English and have not reached the level of communicative competence expected by industry stakeholders.

This gap indicates the need to incorporate ESP-based instructional tasks, such as structured simulations and role-plays, to align better speaking and listening instruction with authentic maritime communication demands. Overall, the illustrated gap analysis confirms that current instructional practices (PSA) do not yet adequately reflect the professional oral communication requirements identified in the target situation (TSA). Without systematic exposure to operational and professional discourse, learners’ speaking and listening competence remains misaligned with workplace expectations, underscoring the need for

pedagogical adjustments grounded in ESP needs analysis.

Accordingly, these findings underscore the need to implement ESP-based instructional interventions, particularly task-based simulations and role-play activities that reflect authentic maritime communication scenarios. Without structured and repeated engagement in workplace-relevant discourse, learners' oral communication competence remains insufficient for professional practice. These results align with Simanjuntak et al. (2025), who stress that Maritime English must prioritize oral communication to enhance operational safety. It also supports Demydenko (2012) assertion that miscommunication at sea often originates from inadequate speaking and listening competence. Although industry stakeholders recognize speaking and listening skills as essential, their development within current English-language instruction has not yet fully aligned with workplace demands. Addressing this gap requires a reorientation of Maritime English teaching toward practice-based, simulation-driven, and context-specific learning to better prepare graduates for professional communication in the maritime transportation sector.

In conclusion, the integrated results and discussion show that speaking and listening skills constitute the most critical language needs in maritime transportation management. However, their development in existing English instruction has not fully met industry expectations. The identified TSA–PSA gap indicates the need to reorient English teaching toward practice-based, simulation-driven learning that reflects real maritime communication scenarios, thereby enabling graduates to achieve communicative readiness aligned with professional demands.

Reading Skills

The results indicate that English reading skills play a strategic role in supporting professional performance in the maritime transportation management sector. In workplace practice, professionals are required to comprehend a wide range of international technical, procedural, and administrative documents, including bills of lading, cargo documents, standard operating procedures, port regulations, safety guidelines, and commercial correspondence. Consequently, adequate reading competence is essential to ensure operational continuity, regulatory compliance, and accurate decision-making in maritime contexts.

Table 5. Table of Reading Skill Needs a category

No	Needs Category	Frequency	Percentage	Valid Percentage	Cumulative Percent
1	Highly needed	8	61.5	61.5	100.0
2	Needed	4	30.8	30.8	38.5
3	Moderately Needed	1	7.7	7.7	7.7
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

The results show that English reading skills are considered a core professional competence in maritime transportation management. Survey data from 13 industry practitioners, presented in Table 4, indicate that 61.5% rated reading skills as highly needed, 30.8% as needed, and only 7.7% as moderately needed. No respondents viewed reading as

unnecessary, confirming its critical role in understanding technical, procedural, and administrative maritime documents.

Interview data confirm that professionals frequently engage with English-language documents and must interpret technical terminology accurately to ensure compliance and operational accuracy. This indicates the need for instructional materials that incorporate authentic maritime texts and develop reading strategies suited to technical and administrative documents.

Industry practitioners must interpret a wide range of English-language documents, including cargo manifests, bills of lading, SOPs, safety guidelines, international maritime regulations, and digital system instructions. Interview responses indicate that workers become familiar with terminology through repeated exposure to operational texts, which makes reading indispensable for ensuring regulatory compliance and preventing procedural errors. Although Table 4 confirms that reading is regarded as a critical skill in maritime practice, it does not reveal whether current learning conditions adequately prepare students for these demands. Therefore, Table 5 below presents a gap analysis between the Present Situation Analysis (PSA) and the Target Situation Analysis (TSA) to identify discrepancies between students' reading competence and industry requirements.

Table 6. Table of Gap Analysis of Reading Skill

No	Language Skill	Present Situation Analysis (PSA)	Target Situation Analysis (TSA)	Gap
1	Reading Skill	Limited exposure to authentic learning materials makes it difficult for them to read maritime-specific texts, such as operational documents, technical reports, port regulations, and logistics documents. As a result, their understanding of real maritime workplace contexts remains limited.	The maritime industry requires reading competence for understanding documents such as standard operating procedures (SOPs), shipping documents, port regulations, and business emails.	Students' comprehension of Maritime English texts remains limited due to insufficient exposure to authentic industry documents.

Source: Analysis of Primary Data, 2026

Analyses above indicate a gap in reading skills. The PSA reveals that limited exposure to authentic documents leads students to have difficulty understanding maritime-specific texts, resulting in a limited understanding of real maritime workplace contexts. In contrast, the TSA emphasizes that the maritime industry requires reading competence to comprehend operational documents such as SOPs, shipping documents, port regulations, and business emails. This gap indicates that students' Maritime English reading skills are not yet aligned with industry demands.

This supports the ESP principle that reading in professional contexts involves understanding genre-specific texts, as noted by Dudley-Evans & St John (2013) also reflects Rahmawati et al. (2023), who state that professionals in maritime logistics rely heavily on reading technical documents to perform their duties accurately.

These findings indicate that Maritime English curricula must incorporate authentic maritime documents and task-based reading exercises, such as analyzing cargo documentation,

interpreting safety guidelines, and scanning operational instructions. Reading skills also emerged as a high-priority requirement due to the predominance of English in technical and regulatory documents, including cargo manifests, port clearance forms, operational manuals, and international maritime regulations. Practitioners emphasized that accurate comprehension of such documents is necessary to maintain compliance and operational accuracy, consistent with earlier studies showing that maritime professionals rely heavily on technical reading skills.

In conclusion, reading skills constitute a critical competency in maritime transportation management, yet their development within current Maritime English instruction remains insufficient. The primary gap lies in the lack of systematic exposure to authentic maritime documents, which limits students' professional literacy. Addressing this gap requires a reorientation of reading instruction toward task-based, document-driven learning grounded in real maritime contexts, thereby ensuring that graduates possess reading competence that is relevant, applicable, and aligned with international industry demands.

Writing Skills

Writing skills are viewed as strategically important for professional communication. Survey findings show that 53.8% consider writing “highly needed” and 38.5% consider it “needed”, and only 7.7% as moderately needed. No respondents viewed writing as unnecessary. This distribution demonstrates a strong consensus that written English constitutes a core professional competence rather than a supplementary skill in maritime workplaces.

Table 7. Table of Writing Skill Needs a category

No	Needs Category	Frequency	Percentage	Valid Percentage	Cumulative Percent
1	Highly needed	7	53.8	53.8	100.0
2	Needed	5	38.5	38.5	46.2
3	Moderately Needed	1	7.7	7.7	7.7
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

Moreover, Industry practitioners indicated that written English is required for email correspondence, documentation of cargo operations, report preparation, port clearance documents, and communication with foreign agents. Interviews revealed that written communication is often preferred for clarity and accuracy, particularly when exchanging information with international partners. These findings highlight the role of formal written English in supporting administrative, operational, and compliance-related tasks.

Interview data also show that, in many cases, writing provides greater clarity than spoken communication when interacting with non-native speakers, making written English a reliable medium for administrative communication. In the maritime context, Demydenko (2012) further emphasizes that written documentation is crucial to ensuring operational safety and regulatory compliance, particularly in multicultural and multilingual environments. Similarly, Rahmawati et al. (2023) note that effective written communication supports coordination among international stakeholders in shipping and port operations.

In sum, the findings confirm that writing skills are essential in maritime workplaces.

Most respondents viewed written English as a core professional competence required for daily tasks, including emails, operational documents, reports, port clearance, and communication with foreign agents. Written communication is also preferred for its clarity and accuracy, especially in international contexts. Therefore, Maritime English instruction should focus on practical, workplace-based writing tasks to prepare students for real professional communication demands.

Table 8 below presents a PSA–TSA gap analysis to identify misalignments between students’ writing competence and the maritime sector's writing requirements.

Table 8. Table of Gap Analysis of Writing Skill

No	Language Skill	Present Situation Analysis (PSA)	Target Situation Analysis (TSA)	Gap
1	Writing Skill	Writing practice based on authentic contexts remains limited. Students are not yet accustomed to producing maritime operational documents, such as professional emails, activity reports, port correspondence, and logistics and shipping documents.	The maritime industry requires writing competence, including the ability to compose operational emails, reports, request forms, and professional correspondence.	Students’ writing skills have not yet aligned with the professional communication requirements of the maritime sector. Students’ writing practice has not been consistently integrated with authentic contexts.

Source: Analysis of Primary Data, 2026

The table of analyses above indicates a gap in writing skills. The PSA shows that writing practice grounded in authentic contexts remains limited, and students are not yet accustomed to producing maritime operational documents. In contrast, the TSA emphasizes that the maritime industry requires writing competence to compose operational emails, reports, request forms, and professional correspondence. This gap indicates that students’ writing skills are not yet aligned with the professional communication demands of the maritime sector.

The findings are consistent with those of Rahmawati et al. (2023), who note that writing skills are indispensable for maintaining accuracy in maritime documentation and for improving coordination among international stakeholders. Writing in maritime contexts requires knowledge of documentation conventions, terminology, and organizational formats, underscoring the need for curricula that include authentic writing tasks (e.g., drafting cargo reports, composing operational emails, completing port records).

In sum, writing competence in this sector functions not only as an administrative tool but as a professional literacy skill central to safety, logistics, and international communication. This suggests the need for a curriculum that incorporates authentic maritime documents, writing simulations, and feedback-oriented tasks to build students’ accuracy and confidence.

Writing skills were identified as necessary for professional correspondence, report preparation, and documentation. Although ranked slightly lower than oral communication, writing remains an essential administrative competence, especially in interactions with foreign companies where clarity, formality, and accuracy are required. This finding is consistent with the documented shift in the maritime sector toward digital written communication via email and reporting systems.

Linguistic Features

Maritime Terminology

The mastery of maritime terminology is a critical linguistic requirement across roles in marine transportation management. The results indicate that mastery of maritime terminology constitutes a fundamental linguistic requirement in maritime transportation management. As shown in Table 9, more than 92% of respondents rated maritime terminology as *needed* or *highly needed*, with 69.2% placing it in the highest category. Industry practitioners reported that operational communication, documentation, and ship–shore interactions rely on an accurate understanding of technical vocabulary, including berth terms, draft, cargo manifest, discharging/loading operations, hatch cover, and other ship-handling terms. Interviews show that professionals use technical English daily in both operational and technical documentation, confirming that mastery of terminology is central to effective job performance.

Table 9. Table Maritime Terminology Needs Category

No	Needs Category	Frequency	Percentage	Valid Percentage	Cumulative Percent
1	Highly needed	9	69.2	69.2	100.0
2	Needed	3	23.1	23.1	30.8
3	Moderately Needed	1	7.7	7.7	7.7
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

These findings are consistent with previous studies, which report that poor understanding of maritime terminology often leads to miscommunication and operational problems in ports and shipping activities (Demydenko, 2012; Saridaki, 2023). From an ESP perspective, specialized vocabulary underpins effective communication in specific professional settings (Hutchinson & Waters, 2010). The high level of demand identified in this study suggests that Maritime English instruction should not focus solely on general vocabulary but should provide regular, structured exposure to authentic maritime terms used in real-world work situations. Without this approach, students may know individual terms but still struggle to use them correctly in professional contexts (Hutchinson & Waters, 2010).

In conclusion, the results confirm that maritime terminology is a fundamental component of Maritime English competence. Supported by both survey data and industry insights, this study highlights the need for Maritime English syllabi to prioritize practical, context-based instruction in terminology to prepare graduates better to meet industry communication demands.

Translation Skills

The results show that translation skills, although ranked slightly lower than other skills, remain a significant competency. As shown in Table 10, the majority of respondents perceived translation as an important skill: 38.5% rated it as highly needed and 46.2% as needed, resulting in a combined 84.7% who considered translation essential in their professional duties. Only 38.5% of respondents classified translation as moderately needed, whereas none viewed it as slightly needed or not needed. This distribution suggests that translation plays a meaningful

supporting role in maritime communication, particularly in contexts involving international documentation and regulations. Interview data provide further insight into these quantitative findings. Practitioners reported that Translation challenges typically arise when interpreting English-language instructions, vessel documents, and international regulations. Interviews indicate that misinterpretation, whether due to unfamiliar terminology or unclear pronunciation by foreign crew, can lead to operational misunderstandings. Some practitioners reported relying on word-by-word translation or digital tools, which often results in an inaccurate meaning. These findings underscore the need for contextual translation training that supports comprehension of authentic maritime texts rather than literal translation.

Table 10. Table of Translation Skill Needs Category

No	Needs Category	Frequency		Valid	Cumulative Percent
			Percentage	Percentage	
1	Highly needed	5	38.5	38.5	100.0
2	Needed	6	46.2	46.2	61.5
3	Moderately Needed	2	38.5	38.5	15.4
4	Slightly needed	0	0	0	0
5	Not Needed	0	0	0	0
	Total	13	100.0	100.0	

Source: Primary Data Processed, 2026

These findings highlight that translation competence in maritime settings is not merely about converting language but about accurately understanding technical, contextual, and situational meaning. This aligns with Hutchinson & Waters' (2010) argument that ESP learners must interpret meaning based on context and purpose, not isolated vocabulary. In maritime English, incorrect interpretation can be operationally significant, affecting safety, scheduling, and communication efficiency.

Furthermore, translation competence is tied to the mastery of maritime terminology, which respondents rated as one of the highest-priority linguistic needs. Practitioners explained that nearly all operational terms, such as discharge, loading, hatch cover, draft, LOA, LBP, boom up/down, and trim, are in English, and misinterpreting these terms can lead to procedural errors or communication breakdowns. This aligns with Demydenko (2012), who asserts that maritime communication heavily relies on standardized technical vocabulary and that misunderstanding a single term can compromise operational safety. Across all skills, practitioners highlighted the importance of maritime terminology as a linguistic foundation for both operational and administrative communication. Mastery of technical vocabulary enables accurate interpretation of procedures and reduces the risk of miscommunication in critical contexts such as cargo handling and berthing operations. The results reaffirm existing scholarship that technical terminology is central to Maritime English proficiency.

Table 11. Table of Gap Analysis of Linguistic Features (Terminology and Translation)

No	Language Skill	Present Situation Analysis (PSA)	Target Situation Analysis (TSA)	Gap
1	Linguistic features (Terminology)	Mastery of maritime terminology and opportunities for	The industry requires strong competence in port, shipping,	A Maritime Terminology module grounded in

No	Language Skill	Present Situation Analysis (PSA)	Target Situation Analysis (TSA)	Gap
	and Translation)	translation practice are limited, and there are no modules or reference dictionaries covering business, logistics, or cargo-handling terminology related to port operations.	logistics, and chartering terminology, including key documents such as bills of lading and manifests.	workplace contexts, with particular emphasis on port-related terminology, is not yet available.

Source: Analysis of Primary Data, 2026

The findings reveal a significant gap between the TSA and PSA analyses, with an apparent discrepancy in terminology and translation. The PSA indicates that students' mastery of maritime terminology and opportunities for translation practice remain limited and are not supported by dedicated modules or reference materials covering port-related, business, and logistics terminology. In contrast, the TSA emphasizes that the industry requires strong terminological competence in port operations, shipping, and logistics, including an accurate understanding of key documents such as bills of lading and manifests. This gap reflects the absence of a workplace-context-based Maritime Terminology module aligned with industry needs. Accurate interpretation of key documents such as bills of lading and cargo manifests is essential to ensure operational efficiency and safety. This finding is consistent with Demydenko (2012), who emphasizes that maritime communication relies heavily on shared technical vocabulary, and with Saridaki (2023), who identifies terminological inaccuracy as a significant source of miscommunication in maritime contexts. Moreover, reliance on literal translation strategies observed in the PSA contradicts ESP principles, which stress contextual meaning over word-for-word equivalence (Hutchinson & Waters, 2010).

In conclusion, the gap analysis confirms that while the industry demands high-level competence in maritime terminology and contextual translation, current instructional practices do not yet adequately reflect these requirements. Bridging this TSA–PSA gap necessitates ESP-oriented syllabi grounded in authentic maritime texts and workplace-relevant tasks to enhance graduates' communicative accuracy and professional readiness.

CONCLUSION

English is an essential and strategic competence in the Maritime Transportation Management sector, viewed by industry stakeholders as a professional prerequisite for operational, administrative, and managerial functions in an international maritime environment. Speaking and listening are the highest priorities due to their critical role in operational communication, port coordination, interactions with foreign crews, and radio or cross-border communication, while reading and writing remain important for understanding and producing maritime documents, business correspondence, operational reports, and international regulations. Mastery of maritime terminology and contextual translation skills is also vital to ensure accuracy and prevent misunderstandings in professional communication. Based on these findings, it is recommended that the Maritime Transportation Management Study Program revise its Maritime English syllabus to emphasize speaking and listening in professional contexts, maintain adequate coverage of reading and writing, and explicitly

integrate maritime terminology and context-based translation practice. Future research should design and test simulation- or teaching factory-based Maritime English learning models and empirically assess their impact on students' professional communication competence, involving a broader range of industry participants, to further enhance the relevance and effectiveness of maritime English instruction and produce linguistically and professionally competent graduates.

REFERENCE

- Acar, U., & Varsami, C. (2021). Practical communication approach in maritime english. *TransNav*, 15(3), 601–604. <https://doi.org/10.12716/1001.15.03.13>
- Aeni, N., Jabu, B., Rahman, M. A., Ismail, H., & Bin-Tahir, S. Z. (2018). The students' needs in maritime english class at ami aipi makassar, indonesia. *Journal of Language Teaching and Research*, 9(6), 1284–1292. <https://doi.org/10.17507/jltr.0906.18>
- Ahmed Alsamadani, H. (2017). Needs Analysis in ESP Context: Saudi Engineering Students as a Case Study. *Advances in Language and Literary Studies*, 8(6), 58. <https://doi.org/10.7575/aiac.all.v.8n.6p.58>
- Ahmmmed, R., Sinha, B. S., Khan, Dr. R., & Islam, D. M. (2020). A needs analysis of maritime English language skills for Bangladeshi seafarers to work on-board ships. *Marine Policy*, 119, 104041. <https://doi.org/https://doi.org/10.1016/j.marpol.2020.104041>
- Basturkmen, H. (2010). *Developing Courses in English for Specific Purposes* (1st ed). Palgrave Macmillan.
- Bocanegra-Valle, A. (2012). Maritime English. In *The Encyclopedia of Applied Linguistics*. Wiley. <https://doi.org/10.1002/9781405198431.wbeal0746>
- Demydenko, N. (2012). Teaching Maritime English: A Linguistic Approach. In *Journal of Shipping and Ocean Engineering* (Vol. 2).
- Dirgeyasa, I. W. (2018). The Need Analysis of Maritime English Learning Materials for Nautical Students of Maritime Academy in Indonesia Based on STCW'2010 Curriculum. *English Language Teaching*, 11(9), 41. <https://doi.org/10.5539/elt.v11n9p41>
- Dudley-Evans, T., & St John, M. J. (2013). *Development in ESP: a multi-disciplinary approach*. Cambridge University Press.
- Fauziningrum, E., & Nicolas, E. (2019). EVALUASI KEGIATAN BELAJAR DAN MENGAJAR BAHASA INGGRIS MARITIM MENGGUNAKAN NEED ANALYSIS APPROACH. *Jurnal Saintek Maritim*, 20(1).
- Hafita, Y. A., Puby Sumarta, R., Riyanto, B., Sulistiono, A., & Sorong, P. P. (2024). A COMPREHENSIVE NEEDS ANALYSIS OF MARITIME ENGLISH FOR SHIP MACHINERY STUDENTS. *Exposure Journal*, 554(2), 554–569. <https://journal.unismuh.ac.id/index.php/exposure>
- Hutchinson, Tom., & Waters, Alan. (2010). *English for specific purposes : a learning-centred approach*. Cambridge University Press.
- Marselia, & Hartono, R. (2017). The Implementation of Standard Training, Certification and Watchkeeping 2010 to Redesign The Maritime English Syllabus for Fulfilling Students' Needs Article Info. *EEJ*, 7(2), 130–138. <http://journal.unnes.ac.id/sju/index.php/eej>
- Meiyantao, O., & Huda, M. (2022). Membangun Kompetensi Generasi Emas Melalui Penguatan Pendidikan dan Pelatihan Vokasi. *Prosiding Seminar Nasional Pengabdian Kepada Masyarakat*, 1070–1086. <https://doi.org/https://doi.org/10.33086/snpm.v1i1.923>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: a Methods*

- Sourcebook (3rd ed.). SAGE Publications, Inc.
- Oksavik, A., Hildre, H. P., Pan, Y., Ockerman, C. L., Appleton, D., Linington, A., Bogojevic-Simonsen, S., Bonde Jensen, H., Zec, D., & Johns, M. (2022). Skills and Competence Gap Between Current and Future Needs.
- Rahmawati, Y., Haryani, & Sulistyorini, D. (2023). THE LINKAGE OF MARITIME ENGLISH SYLLABI WITH THE STUDENTS' NEEDS IN PORT AND SHIPPING COMPANIES. UNNES-TEFLIN National Conference, 656–665.
- Sari, L. I., Faridi, A., Rukmini, D., & Mujiyanto, J. (2021). Investigating Language Needs of Port and Shipping Management Students: Lessons Learned From The Internship Program. Proceedings of the 6th International Conference on Science, Education and Technology (ISET 2020), 556–560.
- Simanjuntak, M. B., Rafli, Z., & Utami, S. R. (2025). A Maritime English learning model for enhancing operational effectiveness. BIO Web of Conferences, 175, 06002. <https://doi.org/10.1051/bioconf/202517506002>
- Sulistiono, A., Hafita, Y. A., Bhahri, A. S., Risianto, W., & Kariadi, M. T. (2021). View of Developing Maritime English Materials for Merchant Marine Polytechnic Students Based on Need Analysis. *Ilkogretim Online - Elementary Education Online*, 20(1), 1115–1122. <https://doi.org/10.17051/ilkonline.2021.01.114>
- Wahl, A., & Kongsvik, T. (2018). Crew resource management training in the maritime industry: a literature review. *WMU Journal of Maritime Affairs*, 17, 1–20. <https://doi.org/10.1007/s13437-018-0150-7>