Non-Native English-Speaking Seafarers – An Investigation into Communicational Challenges and Consequent on High Retention Rates

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ABSTRACT

Purpose: This study investigates the challenges faced by non-native English-speaking seafarers in the maritime industry that would affect their employability and rate of retention. The study aims to explore strategies to elevate seafarers' professional communicational skills, through quality education, as per Sustainable Development Goal (SDG) 4, and effective recruitment, retention, and work diversity practices as per SDG 8 (Decent Work and Economic Growth) and SDG 10 (Reduced Inequalities).

Methodology/Approach/Design: a sequential explanatory approach was employed that integrates quantitative and qualitative methodologies. Initially, quantitative data are collected through online questionnaires, providing preliminary insights into generic communicational challenges among non-native English-speaking seafarers. These insights guide the selection of participants for subsequent qualitative semi-structured interviews with seafarers and maritime employers. The qualitative data are analyzed utilizing commercial NVivo software, focusing on thematic coding and correlation analysis.

Findings/Results: significant psychological, technical, and cultural barriers to effective English communication among maritime students, including fear of criticism, lack of interest, and difficulties in understanding accents. Recommendations included integrating advanced technological tools, interactive learning methods, and broader incorporation of English across maritime courses. The analysis revealed the crucial role of technical skills and English proficiency, with implications for recruitment, training, and workplace inclusivity. Technological innovations and comprehensive training approaches are suggested to address these challenges and improve seafarers' employability and career development.

Key-words:
Maritime communication, English proficiency, seafarers' career development, qualitative research, maritime training, diversity, inclusion, sustainable development goals (SDGs).

INTRODUCTION

The international nature of maritime work necessitates diversity and inclusion, with multinational crews often enhancing collaboration and engagement (Heirs et al., 2021). However, this diversity also introduces communicational challenges, particularly for non-native English speakers Communication is critical in the maritime industry, with English serving as the lingua franca. Miscommunications can lead to severe consequences, including accidents and increased stress levels among crew members (Arulnayagam, 2020). Studies indicate that 80% of global trading ships are staffed by non-native English speakers, complicating effective communication due to different accents and cultural backgrounds (Fan et al., 2017). This gap in communication skills affects employability, career progression, and job satisfaction (Farag & Elashkar, 2016).
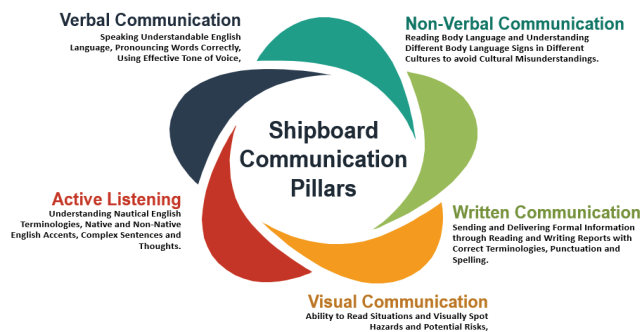

Fig. 1. Shipboard communication pillars, Source: WMU Journal of Maritime Affairs (2015)

As summarized in Figure 1, shipboard communication competence is beyond achieving high English scores in traditional classroom examinations, as it includes verbal, non-verbal, written, visual, and listening skills. To address these issues, maritime education and training institutions must develop curricula that enhance English communication skills, particularly focusing on real-life scenarios and diverse accents. This research aims to create a communicative maritime competency framework, assess current communication competence among non-native English-speaking seafarers, bridge the gap between their skills and employability, and recommend improvements for Maritime English education.

This study is crucial for promoting diversity and inclusion in the maritime workforce and supporting sustainable development goals (SDGs) related to quality education, and decent work. Enhancing the communication skills of non-native English-speaking seafarers can improve their career prospects, contributing to the global maritime economy and fostering a more inclusive and efficient maritime industry. To achieve this goal, a sample was selected to be interviewed for further investigation and to conduct a qualitative analysis. Interviews have been conducted with seafarers from different ranks, and maritime employers to further understand and analyze the English communication challenges seafarers face working on international ships, the impact of poor English proficiency on the seafarer's career and the ship environment and employer, the urgency of addressing this communication gap, and the suggested solutions and enhancements to be made. In addition, an in-depth analysis of new qualitative interviews was extracted and analyzed to obtain more accurate results and detailed recommendations.

LITERATURE REVIEW

Although the International Maritime Organization (IMO) conventions set standards for seafarers to have a working knowledge of English, communication failures persist and continue to cause maritime accidents. John and Brooks (2017) conducted a quantitative analysis of radio communication transcripts from the Vessel Traffic Service (VTS) in the UK and the International Maritime Pilots' Association (IMPA), which revealed that non-native speakers often deviated from the Standard Marine Communication Phrases (SMCP) standards, especially in greetings, numbers, and time expressions. Non-native speakers tended to use more informal greetings and ad-hoc strategies like repetition and paraphrasing to overcome communication difficulties, which could lead to misunderstandings and inefficiencies.

Farag et al. (2016) highlighted the broader manpower concerns in the maritime industry, emphasizing the need for promoting maritime vocations, advancing maritime education, and addressing the early retirement of seafarers. They pointed out that despite their qualifications, Egyptian seafarers struggle to find opportunities on international vessels due to a global shortage of competent officers.

As the maritime industry shifts towards autonomous shipping, more endeavors and innovation are needed in tailoring training programs to the specific needs of the ship crew and maritime personnel, with a deeper focus on generic skills that include communication and teamwork (Meštrovi et al., 2024).

METHODOLOGY

This study adopts a sequential explanatory approach, integrating both qualitative and quantitative methodologies, sequentially, to address the research

questions comprehensively as illustrated in Figure 2.

The qualitative component of the study employs semi-structured interviews, which are a hybrid of structured and unstructured interview formats. Semi-structured interviews combine predetermined questions with the flexibility to explore emerging topics. This approach allows for a detailed exploration of participants' experiences, perceptions, and recommendations regarding English language proficiency in maritime contexts.

For having validated results, the semi-structured interviews are conducted using a comprehensive sampling strategy with two different pools of candidates; (1) twelve non-native English-speaking seafarers from different ranks, and (2) nine maritime employers in shipping companies. The interviews are designed to gather in-depth information about the participants' English language learning experiences, the significance of language proficiency for their careers, and their suggestions for enhancing language skills among non-native English-speaking seafarers. The interviews are conducted virtually to accommodate participants from diverse locations.

Data analysis for the qualitative phase involves several steps. The interviews are transcribed manually and analyzed using qualitative data analysis software such as NVivo™, which facilitates the organization, coding, and retrieval of data. The analysis process includes summarization, categorization, and coding of data segments based on a theoretical framework or emerging themes. The results from the qualitative analysis are used in conjunction with the quantitative findings to test the study's hypotheses and to provide a comprehensive understanding of the relationship between English language proficiency and seafarers' employability. For further in-depth analysis, quantitative data were extracted from the qualitative interviews and analyzed to obtain more accurate results and detailed recommendations, by extracting

variables related to themes across the different questions and answers. This was done by using (1) frequency analysis: counting occurrences of each theme across responses to identify prevalent issues, (2) percentage analysis: calculating the percentage of responses that mention specific themes to value their significance, and (3) correlation analysis: finding correlations between variables to understand relationships.
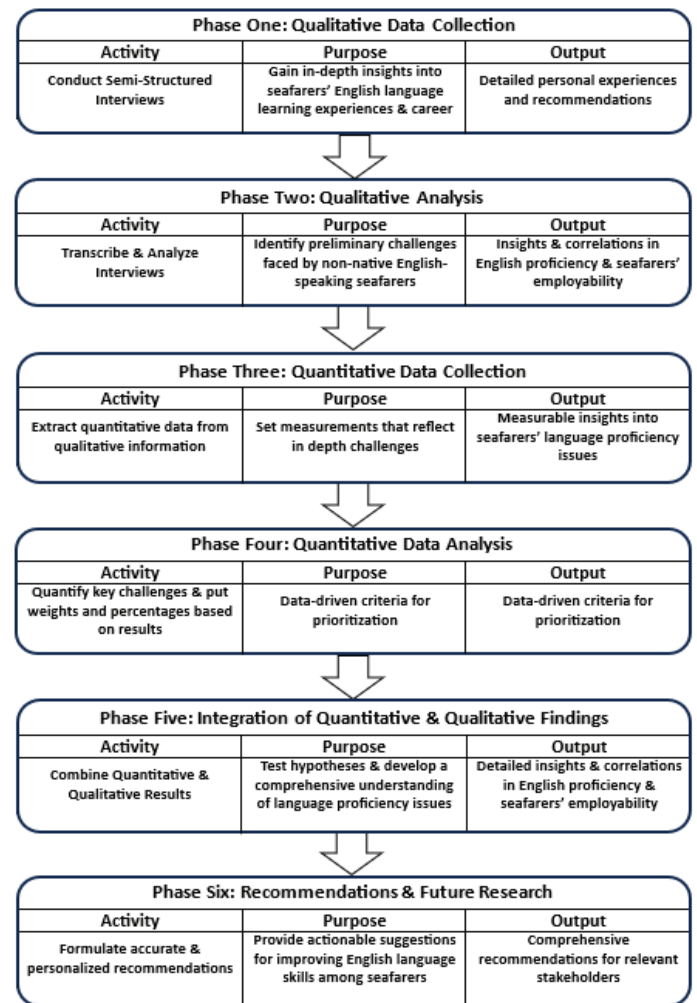

Fig. 2. Research phases (Source: The Researchers)

ANALYSIS AND RESULTS
Qualitative Analysis for Seafarers

Table 1: Summary of Qualitative Interviews with Seafarers about their "English Communication" Challenges working on International Ships with other Seafarers from Different Nationalities

Interview Question	Themes/Responses
Q1: What specific challenges have you encountered while working on foreign ships, particularly related to language and communication?	Discrimination/bullying due to accent; comprehending various English accents; lack of cultural awareness; difficulty with fast-paced English; language barriers among shipmates; lack of cultural exposure; challenges due to diversity in accents; challenges for minority genders; potential communication risks; cultural and psychological challenges.

Interview Question	Themes/Responses
Q2: Can you describe any difficulties you have faced while communicating in English on a ship? What specific situations or interactions led to these challenges?	Misunderstandings due to accents; time consumption in communication; misunderstandings in informal communication; difficulty understanding Native English speakers; preference for communicating with same nationality; challenges due to lack of cultural awareness; feeling left out or indifferent; exposure to new terminologies/vocabulary.
Q3: In your opinion, how adequate was your training in English communication before boarding? What specific aspects of the training do you feel were lacking?	Insufficient practical training; lack of exposure to different accents; reliance on on-the-job learning; inadequate training on communication etiquette/ethics; incompatibility of academic training with practical needs; need for more advanced training; focus on technical skills over language skills.
Q4: What specific changes or improvements would you suggest for maritime English education and training programs? How could these changes better prepare seafarers for effective communication on board?	More practical training; enhancement of listening skills; continuous guidance and feedback; discussion activities with native/non-native speakers; emphasis on English as a communication skill; selection of seafarers with prior English study; continuous practice; learning maritime terminologies and accents; integration of cultural awareness; fostering independence and self-learning mindset; raising awareness on the importance of English education.

Based on Table 1, the analysis of interview responses reveals several key challenges in English communication for seafarers on international ships. These challenges include difficulties understanding various English accents, which can lead to misunderstandings and inefficiencies, particularly in the high-paced environment of ship operations. Additionally, issues like cultural insensitivity and discrimination are prevalent, with a lack of cultural awareness causing misunderstandings and conflicts. The interviews also highlight that training for seafarers is often insufficient, especially regarding practical exposure to different accents and cultural nuances. There is a clear need for more comprehensive maritime English education that addresses language proficiency, cultural competence, and communication etiquette.

Respondents recommend improving English communication skills through more practical training, ongoing guidance, and feedback. They stress the need to prioritize English in maritime training, integrate cultural awareness, and encourage self-learning. Key issues identified include challenges with accents and pronunciation, cultural and psychological barriers, inadequate Maritime English training, and the impact of noisy, stressful environments. Gender-related challenges also affect female seafarers. Addressing these issues is essential for better communication and inclusivity in the maritime industry.

QUANTITATIVE ANALYSIS

This section presents the quantitative analysis of the challenges faced by maritime professionals working on foreign ships, problems encountered in English communication on board, and the adequacy of their English communication training, and analyzed based on the information presented in Table 2.

Table 2: Quantitative Data Analysis from Qualitative Interviews with Seafarers about their "English Communication" Challenges working on International Ships with other Seafarers from Different Nationalities

1. Challenges Faced Working on Foreign Ships	
1.1 Communication Challenges	**41.67%**
o Discrimination or bullying due to accent: 8.33%	
o Comprehending other English accents: 8.33%	
o Difficulty understanding native speakers: 8.33%	
o Unsmooth communication due to lack of English development: 8.33%	
o Noise and stress affecting communication: 8.33%	
1.2 Cultural and Social Integration Challenges	**41.67%**
o Lack of cultural awareness: 16.67%	
o Lack of background in other cultures: 8.33%	
o Exclusion due to other languages: 8.33%	
o Cultural and psychological challenges being the only different nationality: 8.33%	
1.3 Specific Demographic and Situational Challenges	**16.67%**
o Gender-related challenges: 8.33%	
o Routine and day-to-day duties: 8.33%	
2. Problems Communicating in English on a Ship	
2.1 Accent and Pronunciation Issues	**33.34%**
o Accent issues: 16.67% Issues with accents: 16.67%	
2.2 Social and Cultural Communication Issues	**25%**

o	Misunderstood informal communication: 8.33%	
o	Shyness in asking for clarification: 8.33%	
o	Cultural misunderstandings: 8.33%	
2.3 Lack of Communication Challenges		**16.67%**
o	No communication challenges: 16.67%	
2.4 Specific Situational Challenges		**8.33%**
o	Feeling indifferent and left behind: 8.33%	
3. Adequacy of English Communication Training		
3.1 Insufficient and Inadequate Training		**91.67%**
o	Basic English training lacks depth and practical application: 8.33%	
o	Training does not address the needs of multinational crews: 8.33%	
o	Reliance on on-the-job learning with minimal formal training: 8.33%	
o	Training duration is too short to cover essential communication skills: 8.33%	
o	Lack of training on communication etiquette and cultural sensitivity: 8.33%	
o	Focus is primarily on Maritime English rather than comprehensive cross-cultural communication: 8.33%	
o	Training is effective only for crews of the same nationality: 8.33%	
o	Curriculum is not aligned with real-world communication needs: 8.33%	
o	Training emphasizes basic communication rather than fluency: 8.33%	
o	Marine's certificates do not sufficiently prepare seafarers for real-life scenarios: 8.33%	
o	Training programs are designed for students but lack lifelong applicability: 8.33%	
3.2 Prioritization of Technical Skills Over English		**8.33%**
o	English language skills are often undervalued compared to technical competencies: 8.33%	

Source: Data collected from qualitative interviews conducted with maritime professionals regarding their English communication challenges on international ships.

Challenges Faced Working on Foreign Ships

Communication and cultural integration issues are prominent, with 41.67% of respondents citing problems such as accent-related discrimination, difficulty understanding various English accents, and fast-paced speech. These issues are exacerbated by background noise and stress, indicating a need for better language training and communication protocols. Cultural and social integration challenges also affect 41.67% of respondents, with gaps in cultural awareness and exclusion due to language differences. Gender-related issues and routine tasks were reported by 16.67%, highlighting the need for targeted inclusivity measures.

Problems Communicating in English on a Ship

The data reveal significant challenges in communicating effectively in English on ships, particularly related to accent and pronunciation, which accounted for a substantial 33.34% of the reported problems. Respondents noted that both personal accent issues and the diverse accents of fellow crew members hindered clear communication. Additionally, social and cultural factors contributed to misunderstandings, with 25% of respondents highlighting challenges such as misinterpreted informal communication, shyness when seeking clarification, and cultural misunderstandings. Interestingly, a notable 16.67% of participants reported experiencing no communication challenges, suggesting that some individuals adapt effectively to the multilingual environment. However, specific situational challenges, like feelings of indifference or being left out, affected 8.33% of respondents, indicating the emotional impact of communication barriers in maritime settings. Overall, the results underscore the need for improved training and support to enhance communication skills among seafarers.

Adequacy of English Communication Training

A notable 91.67% of respondents deemed their English training inadequate, citing insufficient focus on cross-cultural communication and ongoing learning. Only 8.33% felt their training was overly technical, revealing a need for better alignment with practical communication needs.

Qualitative Analysis: Maritime Employers

Table 3: Summary of Qualitative Interviews with Maritime Employers

Interview Question	Themes/Responses
Q1: What qualities are important to you when recruiting seafarers?	Technical and communication skills; ambition and adaptability; simplicity and high emotional intelligence; certification; behavior, work loyalty, and discipline; certification from trusted entities; qualifications and competence; practical experience and knowledge of sea laws; academic and work experience.
Q2: What are the main barriers to hiring English-speaking seafarers in your company?	Difficulty in finding competent talent; market saturation with basic English speakers; lack of specialized assessment tests; challenges in headhunting talented and fluent English speakers.
Q3: Do you think your inability to communicate in English will affect your hiring decision? Why?	Yes, verification of candidates' skills and abilities; the importance of English proficiency in multinational companies; the necessity of assessing behavioral skills in English; the importance of English skills testing during interviews; organizational culture and alignment; HR as a role model for communication standards.
Q4: What are the types of English exams or certificates required from your company to hire seafarers?	Bachelor's degree in English; general English certificates (e.g., TOEFL, IELTS); specialized Maritime English certificates; in-house English assessments and interviews; recruitment agency assessments; written English exams focusing on maritime reports and professional communication; technical and behavioral interviews conducted in English.
Q5: How successful is your organization in attracting seafarers to work on your ships? And what are the benefits you provide?	Long-term contracts; attractive incentives and wages; good onboard conditions and work-life balance; policy encouraging female seafarers; ongoing training programs; promising future with the company; acceptable salaries and good work environment.
Q6: Tell us if the organization has faced any challenges in hiring and attracting seafarers to work on your ships.	Limited pool of candidates due to few maritime universities; need for tailored talent assessment tools; fostering workplace diversity; maintaining relationships with universities; creating attractive salary schemes; challenges in hiring emotionally intelligent and highly communicative seafarers.
Q7: If there are challenges, how will they be met?	Investment in training and onboarding; outsourcing external talent assessors; developing diversity values; maintaining university relationships; updating rewards and incentives; including emotional intelligence training; promoting employer brand; utilizing technology for recruitment.
Q8: Is there any area that you think needs improvement to attract seafarers to your organization?	Creation of a friendly and collaborative work environment; emotional recognition and awards; continuous development and training; clear career path; performance-based rewards; positive word-of-mouth reputation; awareness of non-financial benefits; use of technology in day-to-day work; updating salary structure.
Q9: What is the seafarers' turnover rate of your organization?	Various turnover rates range from 22% to 35%.
Q10: What are the reasons your senior management usually leaves your organization?	Seeking better opportunities, growth, or financial offers; settling in onshore jobs; retirement.
Q11: To what extent the lack of proficiency in the English language among seafarers had caused problems or challenges in your organization?	Misunderstandings leading to cultural gaps and silos; hindrance to career growth and opportunities; potential harassment and gender-related misunderstandings; impact on work quality and response efficiency; organizational image and reputation; productivity and error rates; learning and self-development limitations.
Q12: Could you please explain if your organization has problems managing a multicultural crew on your ships?	Synchronizing different nationalities under one culture; promoting English communication over mother tongues; ensuring safety and avoiding miscommunication hazards; fostering cultural diversity appreciation; addressing accommodation and cultural gaps; enforcing discrimination-free policies.
Q13: How do you rate whether your seafarers are satisfied with their work?	Worker satisfaction surveys; adherence to policies and procedures; referrals and rehiring rates; refusal of offers from other organizations; absence of problems and complaints; engagement in events and meetings; community and teamwork spirit.
Q14: Do you have a system for receiving feedback from sailors on your ships?	Surveys, reports from officers and captains, periodic interviews, complaints and suggestions system, periodic meetings.
Q15: Can you explain the pillar situations in which you would not want to keep officers in your organization?	Poor performance and lack of development; non-compliance with policies; harassment or lack of respect; failure in duties and quality; safety violations; troublemaking behavior; repeated errors; non-compliance with instructions; bad attitude.

Source: Data collected from qualitative interviews with maritime employers regarding their perspectives on recruiting and managing seafarers.

Table 3 highlights the key qualities sought in seafarers, including technical skills, ambition, adaptability, emotional intelligence, and discipline. Employers face challenges such as sourcing skilled talent, and market saturation with basic English speakers. English proficiency is crucial for effective communication, verified through exams like TOEFL, IELTS, and specialized Maritime English tests. Successful recruitment depends on offering competitive benefits, long-term contracts, and supportive work conditions. Organizations can improve recruitment by investing in training, using tailored assessment tools, promoting diversity, and updating incentives. Fostering a collaborative work environment and competitive salaries are essential for attracting and retaining seafarers.

Maritime Employers Quantitative Data Analysis from Qualitative Interviews

Recruiting seafarers' hinges on technical proficiency, communication skills, certification, and emotional intelligence, essential for operational efficiency and safety. Challenges include the cost of English assessments, which impact hiring and organizational culture. Addressing these issues involves thorough English testing, diligent HR practices, and creating supportive work environments with stability, career development, and competitive incentives. Managing multicultural crews can leverage diversity but requires overcoming communication barriers and maintaining safety. Continuous improvements in training, salary structures, and feedback systems are crucial for enhancing satisfaction and performance in the maritime industry.

Table 4: Quantitative Data Analysis from Qualitative Interviews with Maritime Employers

1. Most Important Recruitment Qualities
- Technical skills: 70%   - Communication skills: 60%   - Emotional intelligence: 30%   - Certification: 40%
2. Barriers to Hiring English-speaking Seafarers
- Competency in English: 80%   - Cost of assessments: 20%
3. Impact of English Proficiency on Hiring
- Importance of English testing: 60%   - Organizational culture impact: 40%   - HR responsibility: 50%
4. English Exams/Certificates Required
- General English certificates: 50%   - Maritime English certificates: 30%   - In-house assessments: 20%

Source: Data collected from qualitative interviews with maritime employers regarding recruitment qualities, barriers to hiring, and English proficiency requirements for seafarers.

DESCRIPTIVE ANALYSIS

The quantitative analysis reveals key insights into maritime recruitment priorities and challenges. According to Table 4, technical skills are the most crucial recruitment quality, highlighted by 70% of respondents, reflecting the industry need for expertise in ship operations. Communication skills are also vital, with 60% emphasizing their importance for effective verbal and written interaction among seafarers. Emotional intelligence, noted by 30%, is increasingly valued for its role in team dynamics, while certification is important for 40% of respondents, ensuring formal qualifications and industry compliance.

English proficiency is a significant barrier, cited by 80% of respondents, underscoring its role in communication, safety, and regulatory compliance. The cost of assessments, though less impactful at 20%, remains a financial consideration.

Regarding English proficiency, 60% stress the need for rigorous English testing, reflecting its importance in global communication and operational efficiency. Organizational culture, noted by 40%, shows how English proficiency affects workplace dynamics in multicultural crews. HR responsibility, acknowledged by 50%, highlights the role of human resources in maintaining language standards. General English certificates are required by 50%, Maritime English certificates by 30%, and in-house assessments by 20%, indicating a need for both standardized and industry-specific language evaluations. These factors collectively impact recruitment, emphasizing technical and communication skills, and English proficiency for effective maritime operations.

DISCUSSION

The analysis reveals critical insights into the maritime industry recruitment and training practices for seafarers. Key findings underscore the paramount importance of technical skills, with 70% of respondents emphasizing their necessity for effective ship operations and technical tasks. Communication skills, including English proficiency, are also crucial, as highlighted by 60% of respondents. This is essential for ensuring clear and safe interactions, particularly

in multinational settings. Additionally, emotional intelligence and formal certifications are valued, reflecting the need for seafarers who can handle both technical responsibilities and interpersonal dynamics.

As for the qualitative results, the difficulties seafarers face in understanding various English accents are well-documented in maritime literature. The responses from the interviews corroborate these findings, indicating that accent and pronunciation are significant barriers, leading to misunderstandings and feelings of discrimination among seafarers. Barriers to recruitment include significant challenges related to English proficiency. A substantial 80% of respondents identified English competency as a major obstacle, critical for effective communication and regulatory compliance. These barriers highlight the need for targeted solutions to enhance the recruitment process. Technological innovations, such as virtual reality and artificial intelligence, present valuable opportunities for improving language learning and communication. Standardizing English testing protocols and developing inclusive communication policies can streamline recruitment and improve operational efficiency. By implementing these recommendations, maritime employers can better address the challenges identified and enhance their recruitment and training strategies, fostering a more effective and supportive working environment for seafarers.

Cultural awareness and sensitivity are critical components of effective maritime communication. The interviews reveal that a lack of understanding of cultural norms and practices can lead to misunderstandings and potential conflicts. Additionally, gender-related issues, as noted by Kitada (2010) and Belcher et al. (2003), exacerbate the challenges faced by minority groups in maritime settings. These studies support the interview findings that emphasize the need to address diversity and inclusion issues to create a more inclusive and supportive work environment for all seafarers.

Also, the gaps in training regarding English communication skills, as reported by the respondents, align with the findings of previous studies. Many respondents feel that their training was insufficient, particularly in terms of practical training and exposure to different accents. This is consistent with the work of Horck (2010), who argues that maritime education and training programs often lack a comprehensive approach to language proficiency and cultural competence. The respondents' emphasis on the need for practical training, continuous guidance, and feedback suggests that maritime education should focus not only on language proficiency but also on cultural competence and communication etiquette. This holistic approach is essential for preparing seafarers to navigate the complex communication landscape of the maritime industry.

In examining the key challenges faced by seafarers, several critical issues emerge. Firstly, accent and pronunciation pose significant barriers, affecting both speakers and listeners and contributing to feelings of discrimination among seafarers. Secondly, insufficient training in Maritime English and communication etiquette further complicates effective communication at sea. Horck (2010) and other studies emphasize the need for more comprehensive and practical training approaches. Moreover, the communication environment aboard ships, characterized by noise and stress, reduces efficiency and sometimes excludes non-native language speakers. Lastly, gender-related issues exacerbate challenges for female seafarers in predominantly male environments, as noted by Belcher et al. (2003).

Based on Tables 1, 2, 3, and 4, the responses from the interviews shed light on significant challenges faced by seafarers regarding English communication on foreign ships. These challenges range from linguistic barriers, such as difficulties in understanding different accents and dialects, to broader issues like discrimination and cultural insensitivity. One common theme is the impact of accents on communication. Seafarers often struggle to comprehend various English accents, leading to misunderstandings and inefficiencies in communication. This challenge is exacerbated by the fast-paced nature of communication onboard ships, where clear and concise communication is crucial for safety and efficiency.

Cultural awareness also emerges as a key issue. Seafarers may encounter difficulties due to a lack of understanding of cultural norms and practices, leading to misunderstandings and potential conflicts. Additionally, minority genders may face specific challenges in such environments, highlighting the importance of addressing diversity and inclusion issues in maritime settings.

The interviews also reveal gaps in the training provided to seafarers regarding English communication skills. Many respondents feel that the training they received was insufficient, with a lack of practical training and exposure to different accents cited as significant issues. This suggests a need for a more comprehensive and practical approach to maritime English education, focusing not only on language proficiency but also on cultural competence and communication etiquette. In terms of improvements, respondents emphasize the importance of practical training, continuous guidance, and feedback to enhance English communication skills. They also stress the need for greater emphasis on

English as a communication skill in maritime education and training programs. Integrating cultural awareness and fostering a self-learning mindset are also seen as essential aspects of improving English communication in the maritime industry. These suggestions echo the recommendations by Bailey et al. (2006), who highlighted the need for ongoing training and support to improve communication skills among seafarers.

The qualitative results from the interviews highlighted several key challenges faced by non-native English-speaking seafarers, such as linguistic barriers, discrimination, and cultural insensitivity. These findings align with Intersectionality Theory, which emphasizes how various social identities intersect to shape individuals' experiences. For instance, the difficulties seafarers face in understanding different English accents and dialects can be seen as a result of the intersection of language proficiency with their national and ethnic identities. Additionally, the reported instances of discrimination and cultural insensitivity suggest that seafarers' linguistic and cultural backgrounds intersect to create unique challenges in their professional environments. The quantitative data may reveal correlations between seafarers' language proficiency and their experiences of discrimination or job satisfaction. For example, statistical analysis could show that seafarers with lower English proficiency are more likely to report feelings of exclusion or discrimination, supporting the idea that language barriers intersect with other aspects of identity to influence their work experiences.

The qualitative interviews also shed light on the push and pull factors influencing seafarers' career decisions. For example, a lack of confidence in English communication was identified as a push factor, deterring seafarers from pursuing certain job opportunities. On the other hand, proficiency in English was seen as a pull factor, attracting seafarers to companies that value effective communication. Quantitative analysis could examine the relationship between English proficiency and career progression. For example, regression models might show that higher English proficiency is associated with better job opportunities, higher salaries, and greater job satisfaction. Surveys could also identify specific push factors (e.g., fear of miscommunication) and pull factors (e.g., career advancement opportunities) that influence seafarers' employment decisions.

The qualitative data revealed significant gaps in the training provided to seafarers regarding English communication skills. Many respondents indicated that their training was insufficient, with a lack of practical exercises and exposure to different accents. This finding is consistent with the Communicative Competence Theory, which highlights the importance

of not just linguistic competence but also the ability to use language effectively in various social and cultural contexts. Quantitative results could measure the effectiveness of current training programs by comparing the communicative competence of seafarers who received different types of training. Surveys might assess seafarers' self-reported competence in specific skills (e.g., understanding instructions, and engaging in cross-cultural communication) and correlate these with their training backgrounds. Additionally, statistical analysis could identify the impact of improved training programs on job performance and safety outcomes.

The integration of these theories with the study's results provides a multidimensional understanding of the challenges faced by non-native English-speaking seafarers. Intersectionality Theory helps explain how language proficiency interacts with other identity factors, leading to varied experiences of discrimination and inclusion. Push-pull factors illuminate the motivational and deterrent influences on seafarers' career choices, highlighting the critical role of language proficiency. Communicative Competence Theory underscores the need for comprehensive training that goes beyond basic language skills to include cultural and social competencies. By aligning the qualitative insights with quantitative evidence, the study can offer robust recommendations for improving English language training programs, fostering inclusive workplace environments, and enhancing the overall well-being and career satisfaction of non-native English-speaking seafarers.

IMPLICATIONS

The study exploration of the challenges faced by non-native English-speaking seafarers has significant implications for the SDGs, which aim to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Understanding and addressing the linguistic and cultural barriers encountered by seafarers can directly contribute to achieving these objectives by enhancing their employability, job satisfaction, and overall contribution to the maritime industry.

SDG 4: Quality Education

The study underscores the importance of education in improving English proficiency among non-native-speaking seafarers. Enhancing maritime education with comprehensive language training, practical skills, and cultural competence supports SDG 4 by boosting seafarers' employability and equipping them for diverse environments, aligning with the goal of inclusive, equitable quality education and lifelong

learning.

SDG 8: Decent Work and Economic Growth

The study highlights language proficiency as key to seafarers' career opportunities and job satisfaction. Improving language training and cultural competence can enhance work quality and safety, supporting SDG 8. By investing in comprehensive training, using immersive technology, and fostering inclusive workplaces, the maritime industry can promote decent work and economic growth, aligning with SDG 8's goals of sustainable economic growth, full employment, and decent work for all.

SDG 10: Reduced Inequalities

The study emphasizes reducing inequalities in the maritime industry, where language barriers and cultural differences often hinder seafarers' employment and career advancement (Devereux, 2017). Targeted language training, inclusive policies, and supportive environments can help address these issues. Promoting diversity and inclusion will reduce economic inequalities and ensure equal opportunities for all seafarers, aligning with SDG 10's goal of reducing inequality and promoting inclusive growth.

CONCLUSIONS AND RECOMMENDATIONS

- Incorporate real-life scenarios and role-playing exercises to improve practical communication skills.

- Provide extensive training that covers different English accents including listening exercises with various accents and discussion activities with both native and non-native speakers.

- Offer ongoing training and development programs rather than one-time courses to ensure sustained proficiency in English communication.

- Ensure ongoing training and feedback through English learning coaches.

- Implement cultural sensitivity training to enhance understanding and collaboration among multinational crews.

- Address gender-related challenges by promoting inclusive practices and providing support networks for minority groups on board.

- Foster an inclusive environment where all crew members feel valued and included, regardless of their nationality, gender, or background.

- Ensure that English communication skills are given equal importance to technical skills in maritime training programs.

- Collaborate with maritime institutes to revise curricula to include a balanced focus on language and technical competencies.

- Develop policies to minimize the use of non-English native languages among same-nationality groups.

- Verify certifications thoroughly to ensure compliance with international standards. Streamline certification verification processes to expedite onboard readiness and compliance assurance.

- Invest in comprehensive language training programs that improve seafarers' English proficiency. Offer ongoing language support and incentivize language proficiency through career advancement opportunities.

- Explore cost-effective English assessment solutions without compromising quality. Consider leveraging digital platforms for assessments and negotiations with assessment providers to reduce costs (Ölçer et al., 2023).

- Standardize English testing protocols across recruitment and deployment phases. Implement consistent evaluation criteria and benchmarks to ensure uniform language proficiency standards.

- Foster an inclusive organizational culture that values linguistic diversity and proficiency. Promote cross-cultural communication initiatives and multicultural awareness among crew members.

- Empower HR departments with resources and training to effectively manage language-related challenges. Provide ongoing support for HR personnel in navigating linguistic diversity and promoting linguistic competence.

FUTURE RESEARCH

Future research could explore several key areas to enhance maritime education and operations. Cultural competence studies could examine how cultural awareness impacts communication and teamwork on ships, leading to improved training programs. Longitudinal studies on language proficiency

could track the effectiveness of various training methods over time, offering insights for curriculum improvements in maritime educational entities and ongoing development through the employment journey. Technological innovations like VR and AI could

be investigated for their potential to revolutionize language learning and communication skills onboard. Gender-specific research could address the unique challenges faced by women seafarers, focusing on effective policies for gender equality.

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