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ENHANCING MARITIME ENGLISH PROFICIENCY: EXPLORING THE INTEGRATION OF THE OCEANTG.COM PLATFORM

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In recent years, maritime education has undergone substantial development, placing greater emphasis on the merge of academic and vocational proficiencies. The objective of this research is to assess the effectiveness of OceanTG.com, an electronic learning platform, in enhancing the English language proficiency of cadets in the field of maritime education. A total of forty-eight recruits participated in the study, which was conducted at Sorong Merchant Marine Polytechnic using a one-group pretest-posttest design. For data analysis, the Wilcoxon signed-rank test was utilized. The results demonstrate a substantial enhancement in the English scores of 41 recruits subsequent to the intervention. OceanTG.com provides interactive learning activities that are in accordance with IMO Model Course 3.17. These activities aim to promote practical English proficiency in the maritime industry. The research highlights the significance of digital platforms in the field of maritime education as a means to improve language proficiency.

Keywords: Digital Platforms; Maritime Education; Maritime English

1. INTRODUCTION

Recent years have witnessed a substantial transformation in maritime education, as an emphasis has shifted towards the integration of academic and vocational approaches. The aforementioned pattern signifies the growing priority placed on equipping students with comprehensive academic credentials in addition to specialized vocational skills (Manuel, 2017). Tertiary education has evolved from a practical, hands-on approach to maritime education to one that emphasizes business and analytical skills, as indicated by the increasing number of tertiary institutions that offer maritime programs at the undergraduate and postgraduate levels (Lau & Ng, 2015). Furthermore, it is imperative to acknowledge the significant impact that maritime education programs have on the professionalization of the maritime industry and the mitigation of income disparities (Aksentijević & Ježić, 2019).

English language acquisition is a critical component of maritime education, specifically concerning English for particular objectives (Sartini, 2020). An increasing demand exists for maritime students to cultivate communicative competence. This demand should be met through the development of a unified curriculum, the creation of culturally relevant learning materials, and an equal emphasis on general and maritime English skills (Ahmmed, 2021). Despite this, scholarly investigations have revealed that maritime education and training alumni and current students frequently struggle with the English language, demonstrating the criticality of enhancing English language instruction in this domain (Batu et al., 2021).

A paradigm shift has occurred in maritime education as a result of the COVID-19 pandemic, which has precipitated an abrupt transition from in-person to online learning. The transition has generated apprehensions regarding the preparedness of students to manage this change and has brought to light the difficulties maritime educators and learners encounter in an online distance learning setting (Mundo et al., 2022; Nas, 2021; Ochavillo, 2020). In addition, the maritime sector's escalating technological advancements and digitalization have highlighted the necessity for a renewed emphasis on education and training in order to effectively respond to these transformations (Sharma et al., 2023).

The place of e-learning platforms in maritime education is increasingly important given the challenges and opportunities mentioned above, especially with the COVID-19 pandemic. Furthermore, several e-learning platforms such as Quipper, Ruang Guru, and Zoom have

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been utilized by educators for learning purposes (Amelia, 2022; Dharmawati, 2023; Putra et al., 2020). Despite the widespread use of various e-learning tools, specific references regarding the OceanTG.com platform in maritime education remain limited. Nevertheless, the potential for enhancing maritime English language learning through the integration of such platforms is promising, aligning with broader scholarly literature that highlights the benefits of digital platforms in improving student engagement, language proficiency development, and immersive learning experiences (Ahmmed, 2021; Cabaron, 2023; Sartini, 2020; Shi & Fan, 2021; Voloshynov et al., 2020). Hence, the potential of OceanTG.com in enhancing maritime English language learning is promising, as suggested by broader scholarly literature on digital platforms. Research is needed to substantiate and validate these claims within the specific domain of maritime education. It has the potential to serve as a facilitator for maritime English learning for instructors and learners alike. The purpose of this study is to determine the extent to which the cadets' English scores can be improved through the use of OCEANTG.COM while learning Maritime English.

2. RESEARCH METHOD

The research design employed in this study was a one-group pretest-posttest design, which is a type of quasi-experimental design within quantitative research. This design involved measuring the same group of participants before and after the intervention to assess changes in the outcome variables. It allowed researchers to evaluate the effectiveness of an intervention within a single group without a control group. The setting for this research was the Sorong Merchant Marine Polytechnic, a specific educational institution where maritime cadets were enrolled in nautical study programs. The population of interest comprised cadets enrolled in the nautical study program at Sorong Merchant Marine Polytechnic. The sample selected for the study consisted of forty-eight cadets from this population, specifically those enrolled during the second semester. Data collection involved administering the test to participants at two different points in time: before the integration of the educational intervention and subsequent to its implementation. This procedure enabled researchers to compare pre-intervention and post-intervention scores to assess the impact of the educational materials on the participants' learning outcomes. The data analysis method employed in this study was the Wilcoxon signed-rank test, a nonparametric statistical technique suitable for analyzing paired data in pretest-posttest designs with a single group. This test was used to assess whether there was a significant difference between the pre-intervention and post-intervention test scores. Its nonparametric nature made it robust against violations of normality assumptions and suitable for data that may not have met parametric test requirements. In order to examine the discrepancy between test scores prior to and subsequent to the intervention, the researchers utilized the Wilcoxon signed-rank test, a widely employed statistical technique in pretest-posttest designs involving a single group (Fong & Huang, 2019). The efficacy of interventions or treatments is assessed using this design, which involves measuring the identical cohort of participants both prior to and subsequent to the intervention. In circumstances where the data do not satisfy the assumptions of parametric tests, such as the normal distribution or homogeneity of variances, the Wilcoxon signed-rank test is especially appropriate (Hilton, 1996). The nonparametric characteristics of the method ensure its resilience to outliers and remove the requirement for data to adhere to a normal distribution. As a result, it can be effectively utilized to analyze data that deviates from the normal distribution (Murakami, 2015). In brief, the Wilcoxon signed-rank test is an advantageous analytical instrument when parametric assumptions are not satisfied in the context of a one-group pretest-posttest design. It offers a reliable approach for assessing the efficacy of interventions or treatments, regardless of rigorous distributional criteria.

3. FINDINGS AND DISCUSSION

The purpose of this study is to determine the extent to which the cadets' English scores can be improved through the use of OCEANTG.COM while learning Maritime English. Before conducting the analysis, a normality test using the Shapiro-Wilk test was performed to assess the distribution of the pre-test and post-test data.

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Table 1. Normality Test

Test of Normality

		Shapiro-Wilk		
	Kelompok	Statistic	df	Sig
Hasil Test	Pre Test	.897	48	.000
	Post Test	.913	48	.002

Table 1 displays the outcomes of the Shapiro-Wilk test conducted to assess normality. A significance level of 0.05 is utilized in conducting this normality test. The probability/significance value is less than 0.05, which indicates that the distribution of the pre-test and post-test data is not normal, according to the results of the normality test. Therefore, the following hypothesis was determined by employing nonparametric statistical analysis, specifically the Wilcoxon test.

Table 2. Wilcoxon Test Result

Ranks

		N	Mean Rank	Sum of Ranks
Post test – Pre test	Negative ranks	3[a]	22.17	66.50
	Positive ranks	41[b]	22.52	923.50
	Ties	4[c]		
	Total	48		

a. Post test < Pre test
b. Post test > Pre test
c. Post test = Pre test

The Wilcoxon test outcomes, presented in Table 2, demonstrate that the test scores of three participants exhibited a decline from the pre-test to the post-test levels. This is supported by the negative result or difference (negative) for all three negative data points (N). The mean rank, denoting the average increase, is 22.17. Conversely, the accumulation of negative ranks totals 66.50. Furthermore, an examination of the positive ranks or difference (positive) outcomes demonstrates that there are a total of 41 positive data points (N). This indicates that the test results of 41 participants have exhibited an improvement from the pre-test value to the post-test value. The mean rank, denoting the average increase, is 22.52. In contrast, the cumulative effect of positive ranks is 923.50. Additionally, it is worth mentioning that the Ties value is 4, indicating that pre-test and post-test scores were identical for four individuals.

Table 3. Statistic Test Result

Test Statistics[a]

	Post test - Pre test
Z	-5.031[b]
Asymp. Sig. (2-tailed)	.000

a.Wilcoxon Signed Rank Test
b.Based on Negative ranks.

Level one of the subheading is present. Moreover, further elaboration will be provided in the subsequent section. The significance level with two tails is 0.000, as demonstrated by the statistical test outcomes presented in Table 3. Based on the observation that 0.000 is less than the significance threshold of 0.05, it is possible to conclude that Oceantg.com's pre-test and post-test outcomes are different.

The outcome indicates that the pre-test and post-test results of Oceantg.com are distinct. Forty-one students' grades were enhanced through the implementation of educational resources present on oceantg.com. Consistent with prior investigations, this study found that digital platforms have the capacity to enhance language proficiency, promote student engagement, and create immersive learning environments in the context of

maritime education (Ahmmed, 2021; Cabaron, 2023; Sartini, 2020; Shi & Fan, 2021; Voloshynov et al., 2020).

Efficient acquisition of maritime English is a pedagogical approach that places emphasis not only on the desired results for students, but also on the subsequent development of a more profound understanding and the expected induction of significant behavioral changes. Knowledge expansion, motivation, and learning outcomes are the three facets by which the efficacy of a learning intervention can be evaluated (Firdiansyah & Pamungkas, 2021).

The oceantg.com website incorporates the Ocean Learning Platform and Ocean Learning Library. To meet specific needs and requirements, courses on the Ocean Learning platform cover a vast array of professional topics, including safety, security, and more. Nonetheless, we are required to pay for the courses we need. A number of the subject matter covered in the maritime English course aligns with the references provided in IMO Model Course 3.17, including videotell, marlins, and seagulls. In order to accomplish educational goals, an integration of video, illustration, animation, and interaction is employed. Instructional videos, especially interactive ones, had a positive impact on learning effectiveness (Zhang et al., 2006). Besides, the use of animation has been found to motivate students in understanding educational material due to the presence of enjoyable illustrations (Amalia et al., 2020). Thus, this platform has the potential to facilitate English learning for maritime purposes for both instructors and students.

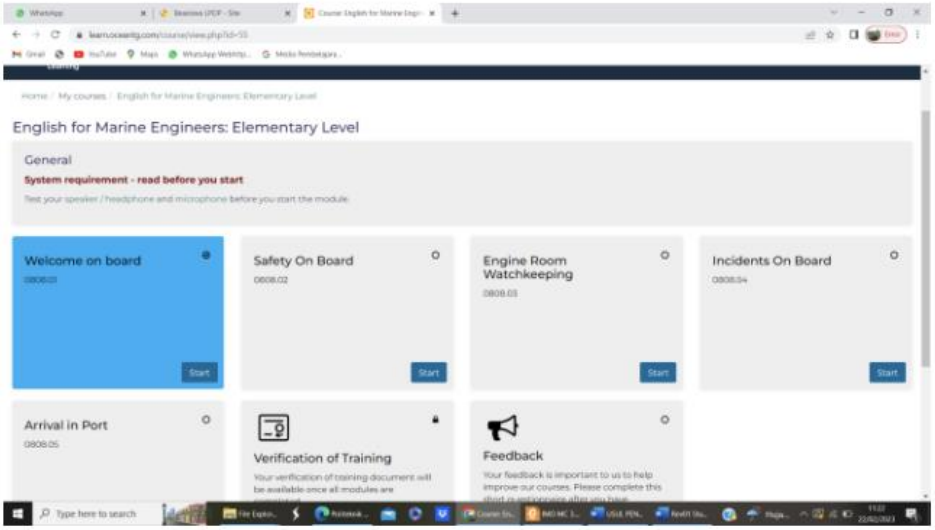

Figure 1. Subject of Study on the Oceantg.com Platform

Upon being accessed on a computer, the oceantg.com platform illustrated in Figure 1 offers the user an extensive assortment of educational subjects to choose from. Users are granted access to a variety of interactive exercises and activities designed to improve their reading, sentence structure comprehension, word stress, accurate pronunciation, and listening abilities. In addition, users are granted the capability to engage in critical circumstances that necessitate the implementation of IMO Standard Maritime Communication Phrases (SMCP) for the purpose of delivering a response. The content available on Oceantg.com is in alignment with the material that is addressed in IMO Model Course 3.17.

The IMO Model Course 3.17 is an English for the Sea program that is specifically developed to enhance the communication proficiencies of auxiliary staff employed on cruise ships. The course places emphasis on honing the skills of auxiliary personnel in order to effectively convey safety-related matters in English or the language that is commonly used by passengers and other staff members aboard. It covers work-specific topics, the precise terminology used to characterize ship components, and shipboard organization, in addition to all safety-related essentials. Additionally, the course simulates scenarios in which auxiliary personnel must engage in communication with one another, other crew members, and

authorities on the shore. The ultimate objective of this course is to enhance practical English speaking fluency (Martes, 2015).

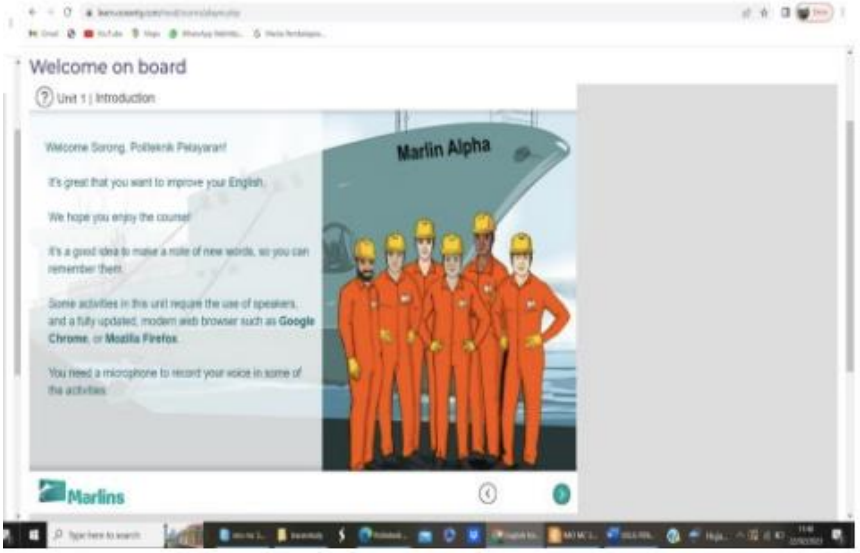

Figure 2. The Oceantg.com Platform Features a Maritime English Learning Activity View.

The visual representation of the maritime English content from Marlins study pack 1 in Figure 2 serves to augment its attractiveness. The reference in Marlins Study Pack 1 is visually depicted in order to augment its aesthetic value. Moreover, the exercises can be performed directly within the application by the users. The outcomes and advancements achieved in the completion of the exercises can subsequently be conveniently observed by both educators and learners. However, the instructor's responsibility to provide guidance is of the utmost importance, given that students are not expected to immediately begin the exercises without initially being briefed. Carry out the exercises without any accompanying explanation. Therefore, this platform possesses the capacity to function as a conduit that facilitates the attainment of maritime English proficiency for both educators and learners.

4. CONCLUSION AND SUGGESTIONS

The proof of the digital platform's ability to promote student engagement, facilitate language proficiency improvement, and create an immersive learning environment in the field of maritime education was demonstrated by the improved grades of forty-one students who utilized the educational resources available on Oceantg.com. In addition to the achievement of predetermined goals, successful maritime English acquisition involves the cultivation of deep understanding and the encouragement of significant behavioral changes. Motivation, learning outcomes, and the progression of knowledge are the three fundamental elements that comprise the evaluation of learning efficacy. The findings of the research underscore the significance of interactive resources and digital platforms in promoting language acquisition and active participation among maritime students. The integration of these tools has the potential to significantly enhance learning outcomes and support the overarching objective of equipping maritime professionals with proficient communication abilities to navigate practical situations. It is advisable to incorporate interactive and captivating instructional videos, such as those found on Oceantg.com, into English language courses for the maritime sector. This has the potential to increase student involvement and positively impact the quality of language acquisition in maritime education environments.

REFERENCES

Ahmmed, R. (2021). A framework for Maritime English language planning in Bangladeshi maritime education and training institutes. *SN Social Sciences*, *1*(7), 1–22. https://doi.org/10.1007/s43545-021-00188-5

Aksentijević, N. K., & Ježić, Z. (2019). Education and reducing income inequalities – the

importance of education in maritime studies. *Pomorstvo*, *33*(2), 191–204. https://doi.org/10.31217/p.33.2.9

Amalia, U., Fitria, E., & Handayani, I. (2020). Pengembangan media animasi Flash untuk meningkatkan critical thinking skill Remaja melawan hoaks. *Counsellia: Jurnal Bimbingan Dan Konseling*, *10*(2), 160. https://doi.org/10.25273/counsellia.v10i2.7600

Amelia, A. (2022). Penggunaan Aplikasi Quipper School Dalam Meningkatkan Minat Belajar Peserta Didik. *Jurnal Insturksional*, *3*(2), 180–186.

Batu, P. N. L., Priadi, A. A., & Cahyaningrum, W. (2021). Accessible learning sources: A need analysis on maritime english learning apps. *Transactions on Maritime Science*, *10*(2), 520–525. https://doi.org/10.7225/toms.v10.n02.020

Cabaron, R. R. (2023). Enhancing the Digital Competence of Maritime Education Faculty in the Philippines Using DigComp 2.0 Framework. *International Journal of Multidisciplinary: Applied Business and Education Research*, *4*(4), 1096–1101. https://doi.org/10.11594/ijmaber.04.04.06

Dharmawati, D. (2023). The Use of Zoom Application As Teaching Media To Improve Students' Speaking Skill. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, *10*(2), 1933–1940. https://doi.org/10.24256/ideas.v10i2.3164

Firdiansyah, Y., & Pamungkas, H. P. (2021). Analisis Persepsi Mahasiswa Terhadap Penggunaan Kahoot Sebagai Media Evaluasi Pembelajaran Pada Mata Kuliah Teori Ekonomi Moneter. *JEKPEND: Jurnal Ekonomi Dan Pendidikan*, *4*(1), 1. https://doi.org/10.26858/jekpend.v4i1.15549

Fong, Y., & Huang, Y. (2019). Modified Wilcoxon–Mann–Whitney Test and Power Against Strong Null. *American Statistician*, *73*(1), 43–49. https://doi.org/10.1080/00031305.2017.1328375

Hilton, J. F. (1996). The appropriateness of the Wilcoxon test in ordinal data. *Statistics in Medicine*, *15*(6), 631–645. https://doi.org/10.1002/(SICI)1097-0258(19960330)15:6<631::AID-SIM206>3.0.CO;2-6

Lau, Y. yip, & Ng, A. K. Y. (2015). The motivations and expectations of students pursuing maritime education. *WMU Journal of Maritime Affairs*, *14*(2), 313–331. https://doi.org/10.1007/s13437-015-0075-3

Manuel, M. E. (2017). Vocational and academic approaches to maritime education and training (MET): Trends, challenges and opportunities. *WMU Journal of Maritime Affairs*, *16*(3), 473–483. https://doi.org/10.1007/s13437-017-0130-3

Martes, L. (2015). Revision of IMO Model Course 3.17 Maritime English. Focus on Maritime English to Auxiliary Personnel. *TransNav, the International Journal on Marine Navigation and Safety of Sea Transportation*, *9*(3), 309–313. https://doi.org/10.12716/1001.09.03.02

Mundo, D. G. S. Del, Malangen, A. D., & Cruz, O. Dela. (2022). Challenges and Coping Strategies of Maritime Instructors and Students in An Online Distance Learning (ODL) Environment. *International Journal of Multidisciplinary: Applied Business and Education Research*, *3*(2), 288–302. https://doi.org/10.11594/ijmaber.03.02.14

Murakami, H. (2015). The power of the modified Wilcoxon rank-sum test for the one-sided alternative. *Statistics: A Journal of Theoretical and Applied Statistics*, *49*(4), 781–794. https://doi.org/10.1080/02331888.2014.913049

Nas, S. (2021). Transformation of Maritime Education into Distance Online Education. *Journal of Eta Maritime Science*, *9*(2), 64–65. https://doi.org/10.4274/jems.2021.63626

Ochavillo, G. S. (2020). A Paradigm Shift of Learning in Maritime Education amidst COVID-19 Pandemic. *International Journal of Higher Education*, *9*(6), 164. https://doi.org/10.5430/ijhe.v9n6p164

Putra, M. A. H., Mutiani, M., Jumriani, J., Ramadhan, S., & Rahmatina, R. (2020). Utilization

Learning Management System (LMS) of Ruang Guru for Education Teachers in Banjarmasin. *The Kalimantan Social Studies Journal*, *2*(1), 31. https://doi.org/10.20527/kss.v2i1.2461

Sartini, S. (2020). Kahoot in Maritime English Teaching: Its Impact on Nautical Science Cadet's Oral Reproduction and Vocabulary. *English Language Teaching Educational Journal*, *3*(1), 41. https://doi.org/10.12928/eltej.v3i1.1667

Sharma, A., Undheim, P. E., & Nazir, S. (2023). Design and implementation of AI chatbot for COLREGs training. *WMU Journal of Maritime Affairs*, *22*(1), 107–123. https://doi.org/10.1007/s13437-022-00284-0

Shi, J., & Fan, L. (2021). Investigating Teachers' and Students' Perceptions of Online English Learning in a Maritime Context in China. *SAGE Open*, *11*(3). https://doi.org/10.1177/21582440211040800

Voloshynov, S. A., Popova, H. V., Yurzhenko, A. Y., & Shmeltser, E. O. (2020). The use of digital escape room in educational electronic environment of maritime higher education institutions. *CEUR Workshop Proceedings*, *2643*, 347–359. https://doi.org/10.55056/cte.364

Zhang, D., Zhou, L., Briggs, R. O., & Nunamaker, J. F. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information and Management*, *43*(1), 15–27. https://doi.org/10.1016/j.im.2005.01.004