BRIEF REPORT
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Social media for improving the students' vocabulary mastery in ESP Maritime English

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The ever-expanding globalization era brings with it a host of new developments in people's lives, including methods of learning, especially when it comes to increasing vocabulary in English, the universal language of communication. Economic issues are greatly impacted by globalization; as a result, trade between countries is growing quickly, and shipping is the most suitable means of transportation. Consequently, there is a growing need for proficient sailors who speak English, especially maritime English, in order to demonstrate clear communication and reduce accidents brought on by miscommunications between crew members and ships. For students in maritime schools, learning Maritime English (ME) terminology is a prerequisite to developing proper communication skills. Social media is one of the teaching strategies used with students at the maritime academy.

Keywords: social media, vocabulary mastery, ESP, maritime English

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INTRODUCTION

In this age of globalization, communication in English is crucial. The individuals in charge of these activities must also be proficient in English because it facilitates the significant expansion of industrial activity worldwide. Since most cargo in this profession is transported by ship, seafarers who work closely together also need to be fluent in English. As a result, seafarers require communication on board, and since maritime professionals are multilingual and originate from different nations, English is the primary language used for this communication (Ahmmed, 2017). Furthermore, Cole & Trenkner (2008) affirmed that The international maritime community uses the English language, which is a tool for international communication, as marine English to promote seaborne trade facilitation and navigation safety. All educational institutions must implement and standardize management quality in order to contribute to increased safety. For instance, educational institutions that support sustainable quality programs and the expected ability to communicate in English are needed to support the demands of the global maritime industry (Ratnaningsih et al., 2019).

However, when it comes to Indonesian seafarers' ability to speak English both on board and ashore, there is still a major language barrier. Previous research indicates that the majority of Indonesian seafarers communicated by body language when their English vocabulary was insufficient (Riyanto et al., 2023). That is the main reason why learning language should always start with vocabulary. Several tactics must be used in Indonesian maritime education and training programs to increase students' vocabulary mastery, particularly in maritime English and English for Special Purposes. Using social media is one of these strategies, as Indonesia's internet user base is growing at a rapid pace (Pertiwi, 2022).

Additionally, this is based on a survey conducted by the Association of Service Providers Internet Indonesia (APJII), which found that Indonesia's Internet penetration rate during 2022 – 2023 reached 78.19% meaning that, out of the country's total population of 275,773,901 people, approximately there were 215,626, 156 people doing online activities during that time (VOI, 2023). Social media gives users unlimited opportunities to connect with people worldwide, which allows kids to expand their vocabulary. This possibility allows users to engage in unintentional learning through interaction. Students studying English as a foreign language can learn English (Asari, 2023). Blogs, social networks (Facebook), microblogs (Twitter), wikis (Wikipedia), video podcasts, and photo sharing (Instagram and Snapchat) are some examples of social media platforms that facilitate communication. Apps like Facebook, WhatsApp, YouTube, Twitter, and others have greatly increased social engagement and information exchange among student and teacher groups (Slim & Hafedh, 2019). Thorne (2014) also stated that social media applications allow users to cross the boundaries of their countries, connect and express themselves on a global scale.

Various studies have dealt with social media availability and the new horizons they have created, especially for the youths (Lin et al., 2016). In addition, from the aspects in education they have, researchers have called for the use of social media in the field of education (Slim & Hafedh, 2019). Using those platforms for teaching and learning includes sharing instructional resources like games, videos, and texts for reading and listening. Furthermore, since students can access them outside of scheduled class times at school or on campus, more lively discussions can take place at any time.

Some specific studies which revealed the using of social media for enhancing the vocabulary mastery were from Sabater & Fleta (2015) that discussed the findings of a novel study that used a social networking platform on a task created specifically for the purpose of practicing specialist language. An experimental study examined if using Twitter, a microblogging platform, may increase students' confidence in using ESP vocabulary within the context of blended learning. A different study found that social network-based ESP education was beneficial for ESP vocabulary mastery (Saienko et al., 2020). Therefore, this studies objective is to reveal the effectiveness of the social media in improving the students' vocabulary in ESP maritime English.

METHODS

Research Design

This study employed classroom action research (CAR) as its research methodology. Action research, which involves the participation of practitioners, laymen, and researchers, is the proper way for identifying practical problem-solving in a social setting to increase the quality of action within it (Burns et al., 1967). Additionally, action research was used to enhance the standard of instruction and learning, with a focus on the learner's motivation to acquire language (Kusumaningrum & Binarti, 2021). This study conducted in a maritime polytechnic in Indonesia with 48 (forty-eight) students in the Nautical Department. These students were randomly assigned to a control group of 24 which is taught by the traditional method, and an experimental group of 24 taught by using social media. The instruments are the Maritime English Vocabulary Test in pretest and post-test which the format was adapted from the format test by Siregar (2020) and originally called as Vocabulary Levels Test. To standardize the test, a pilot study was conducted to calculate the reliability that was calculated by Cronbach Alpha Formula which was 0.90. The test included 40 multiple -choice items and the grades were calculated out of 40.

In order to see whether the social media able to improve the students' vocabulary in ESP maritime English, the similar vocabulary test was administered as the post-test after treatment in the Experimental group. This study was carried out in two iterative cycles: Cycle 1 (March – April 2021) and Cycle 2 (May – June 2021) with four phases which were planning, action, observation, and reflection (Hanum, 2021). The cycles of Classroom Action Research can be seen in the figure 1 below:

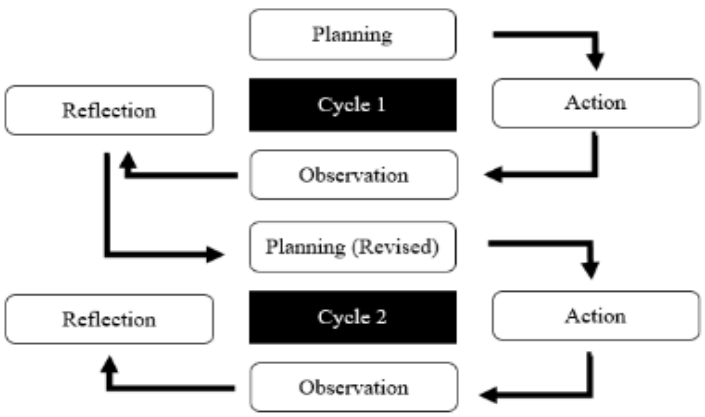

FIGURE 1 | Cycles of Classroom Action Research Model

Prior to initiating the initial cycle, the investigator carried out preliminary observations. The researcher then carried out cycle 1 again. In this investigation, two cycles were conducted. Every cycle has three meetings in it. Pre-test was the first meeting of cycle 1. Using YouTube, Facebook, and Instagram as the social media platforms, marine English vocabulary was taught during the second and third meetings. The types of emergency scenarios on board, the safety equipment on board, and the navigational equipment were the topics of these discussions. The Cycle 1 test performed after treatment in the third meeting of cycle 1. The first and second meeting of cycle 2 were used to teach maritime English vocabulary using the YouTube, Facebook and Instagram again. The third meeting was post-test.

Data Collection

Both groups have the pre-test and post-test in Maritime English Vocabulary Test. The control group doesn't use social media while the experiment does. In the experiment group, the students watch the Man Overboard procedure on YouTube, join maritime Facebook groups such as the

maritime studies organization, follow the other seafarers' Instagram who often shares their photos and activities on board, and so on. Then they can give comments or ask for further information about the activities. After that, they create the maritime vocabulary list and use them in the writing and speaking activities in the classroom. The discussions related to vocabulary are conducted during the learning process. After three meetings in cycle 2, the post-test was assigned to them.

Data Analysis

Data was collected and then processed using the SPSS software. To address the research issue, a paired sample t-test using descriptive statistics was initially conducted to determine whether word knowledge of students in the experimental and control groups differed significantly. To compare the means of the two groups in the post-test, an independent sample t-test was used.

RESULTS AND DISCUSSION

The students' activities are divided into 3 (three) phases. The first is the pretest, the learning phase in which the experiment group uses and joins social media such as Youtube, Facebook, and Instagram. This group consists of 24 (twenty-four students). Meanwhile, the control group, which has the same number of students, is learning without social media. The last phase is the posttest. The pretest and posttest related to the Maritime English Vocabulary Test consist of 4 (four) categories. They are the ship constructions (types and parts of the ship), the safety equipment on board, the deck maintenance tools, and the navigation equipment on the bridge. Each category consists of 10 (ten) questions, so there are forty questions in the test.

The data from pretest and posttest were analyzed using SPSS statistics. First, the descriptive statistics and histograms from all the tests are showed. The pretest in the control group showed that the mean is 69,08, the median is 70 with the deviation standard is 1,665. The descriptive statistic result of the Control group's pretest can be seen in figure 2 below.

		Pretest_control
N	Valid	24
	Missing	0
Mean		69.0833
Median		70.0000
Mode		70.00
Std. Deviation		1.66594
Minimum		66.00
Maximum		72.00

FIGURE 2 | Descriptive Statistic of Control group's pretest

Meanwhile, the histogram in figure 3 showed that most students in Control group's pretest got 70 as their score.

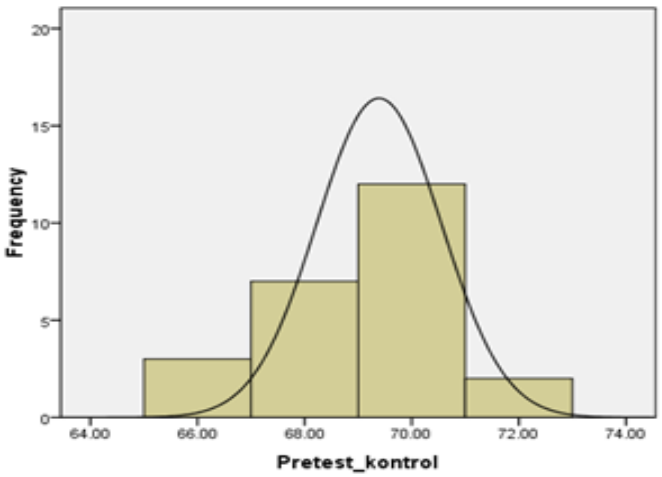

FIGURE 3 | The histogram of Control's group pretest

Then, in figure 4, it can be seen that the posttest in the Control group showed that the mean is 75,54, the median is 76 with the deviation standard is 2,702.

		Posttest_control
N	Valid	24
	Missing	0
Mean		75.5417
Median		76.0000
Mode		76.00
Std. Deviation		2.70232
Minimum		67.00
Maximum		80.00

FIGURE 4 | Descriptive Statistic of Control group's posttest

The following is the histogram of Control's group posttest which showed shows that the curve leans closer to score 75, this is because the score 76 dominates the scores of the students. The deviation standard is bigger than the histogram in control group's pretest because the minimum score and modus have longer distance space. The histogram is in figure 5.

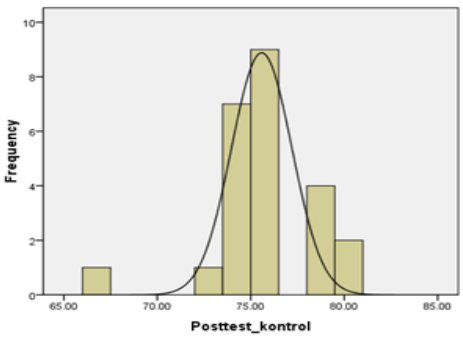

FIGURE 5 | The histogram of Control's group posttest

After that, in figure 6, the descriptive statistic of pretest in the Experiment group showed that the mean is 68,83, the median is 69 with the deviation standard is 1,761.

		Pretest_eksperiment
N	Valid	24
	Missing	0
Mean		68.8333
Median		69.0000
Mode		70.00
Std. Deviation		1.76109
Minimum		66.00
Maximum		72.00

FIGURE 6 | Descriptive Statistic of Experiment group's pretest

Meanwhile, the histogram of the experiment group's pretest in Figure 7 indicated that the curve leans closer to score 70, this was because the score 70 dominates the scores of the students.

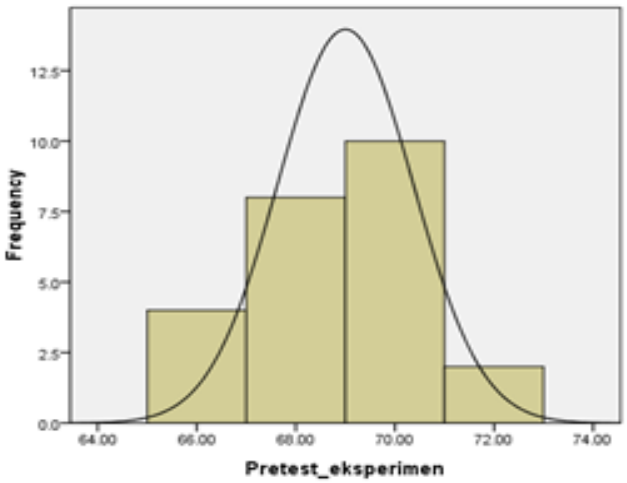

FIGURE 7 | The histogram of Experiment's group pretest

Next is in figure 8, the descriptive statistic of posttest in the Experiment group that conveyed the mean is 77,83, the median is 78 with the deviation standard is 2,697.

		Postest_eksperiment
N	Valid	24
	Missing	0
Mean		77.8333
Median		78.0000
Mode		78.00
Std. Deviation		2.69729
Minimum		72.00
Maximum		82.00

FIGURE 8 | Descriptive Statistic of Experiment group's posttest

Then, in figure 9, the histogram of the Experiment group's posttest showed that the curve leans closer to score 77,5. This is because the score 78 dominates the scores of the students.

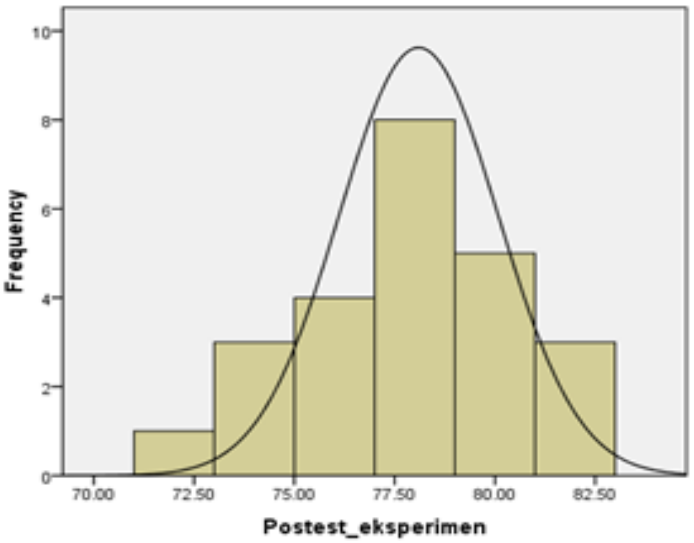

FIGURE 9 | The histogram of Experiment's group posttest

After the explanation of the descriptive statistic above, then the data were calculated to find the normal distribution of the tests are normal. The figure 10 below is the test distribution control group's pretest. The Kolmogorov-smirnov test pointed that the value is 1,432 which is greater than 0,05. So, the data in control group's has normal distribution.

One-Sample Kolmogorov-Smirnov Test

		Pretest_kontrol
N		24
Normal Parameters[a,b]	Mean	69.0833
	Std. Deviation	1.66594
Most Extreme Differences	Absolute	.292
	Positive	.208
	Negative	-.292
Kolmogorov-Smirnov Z		1.432
Asymp. Sig. (2-tailed)		.033

a. Test distribution is Normal.

b. Calculated from data.

FIGURE 10 | One sample of Kolmogorov-smirnov of Control group's pretest

Meanwhile, for Control group's posttest, the Kolmogorov-smirnov test result in figure 11 showed that the value is 0,984 which is greater than 0,05. So, the data in control group's posttest had normal distribution.

One-Sample Kolmogorov-Smirnov Test

		Posttest_kontrol
N		24
Normal Parameters[a,b]	Mean	75.5417
	Std. Deviation	2.70232
Most Extreme Differences	Absolute	.201
	Positive	.183
	Negative	-.201
Kolmogorov-Smirnov Z		.984
Asymp. Sig. (2-tailed)		.288

FIGURE 11 | One sample of kolmogorov-smirnov of control group's posttest

As a result, Kolmogorov-smirnov test in Control group's pretest and posttest indicated the result 1.432 and 0.984 which were greater than 0,05. So, the data in control group's has normal distribution.

Next is the Kolmogorov-smirnov test in Experiment group's pretest and posttest. The figure 12 below is the test distribution of Experiment group's pretest. The Kolmogorov-smirnov test pointed that the value is 1,206 which is greater than 0,05. So, the data in Experiment group's pretest had a normal distribution.

		Pretest_eksperimen
N		24
Normal Parameters[a,b]	Mean	68.8333
	Std. Deviation	1.76109
Most Extreme Differences	Absolute	.246
	Positive	.182
	Negative	-.246
Kolmogorov-Smirnov Z		1.206
Asymp. Sig. (2-tailed)		.109

FIGURE 12 | One sample of Kolmogorov-smirnov of experiment group's pretest

While in the Kolmogorov-smirnov test for Experiment group's posttest in figure 13 pointed that the result is 0.937. So, since the pretest and posttest results were greater than 0,05, the data had a normal distribution.

		Postest_eksperimen
N		24
Normal Parameters[a,b]	Mean	77.8333
	Std. Deviation	2.69729
Most Extreme Differences	Absolute	.191
	Positive	.142
	Negative	-.191
Kolmogorov-Smirnov Z		.937
Asymp. Sig. (2-tailed)		.343

FIGURE 13 | One sample of Kolmogorov-smirnov of experiment group's posttest

Furthermore, figure 14, the test of homogeneity of variances was applied to reveal whether the pretest and posttest data are homogeny. As described in figure The method of Levene test for pretest is 0,697 (sig>0,05) and the posttest significancy is 0,773 (sig>0,05). Then, it can be concluded that the data is homogenous.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
pretest	.154	1	46	.697
Posttes	.084	1	46	.773

FIGURE 14 | Test of homogeneity of variances in experiment and control group's pretest and posttest

After analyzing the data from pretest and posttest, the t-test is used to know the differences in the students' vocabulary mastery improvement. The figure 15 showed the t-test of pretest and posttest in Control group.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Control group	Equal variances assumed	1.437	.237	-9.966	46	.000	-6.45833	.64801	-7.76270	-5.15396
	Equal variances not assumed			-9.966	38.276	.000	-6.45833	.64801	-7.76984	-5.14682

FIGURE 15 | The t-test of pretest and posttest in Control group

Then, in figure 16, the t-test of pretest and posttest in Experiment group were described.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Eksperiment group	Equal variances assumed	2.046	.159	-13.687	46	.000	-9.00000	.65755	-10.32357	-7.67643
	Equal variances not assumed			-13.687	39.594	.000	-9.00000	.65755	-10.32938	-7.67062

FIGURE 16 | The t-test of pretest and posttest in Control group

Considering the significant-value (sig <0,05) showed that the two groups performed significantly different on the post-vocabulary test which indicated to the effectiveness of the social media for improving the vocabulary mastery. Furthermore, paired t-test statistic was run to determine whether the vocabulary mastery of the participants has changed before and after the treatment.

Furthermore, the t-test comparing the pretest and posttest in control group revealed the significant-value (sig <0,05) which showed that the students gain improvement in posttest. But, comparing the significant improvement between the two groups, the experiment group which used the social media reached more significant improvement in maritime English vocabulary mastery than the control group.

Those tests revealed that the social media had a significant impact in enhancing the vocabulary of the students who learned English language. This result similar with the research conducted by Hanan et al. (2023) which reported that social media was crucial to learning English because it gave students who were learning the language the chance to get better at writing, reading, and other skills as well as to expand their vocabulary by reading new texts and phrases since this was the crucial media as a communication tools in the new globalization period.

CONCLUSION

The results of the study indicated that students' vocabulary acquisition improved when social media was used in ESP maritime English. The ESP Maritime English in this research were about the Safety of Life at Sea (SOLAS) which discussed about the importance of knowing the terminologies in the safety equipment for different distress situation on board with several regulations about their standard procedures. Then the social media sites like

Facebook, Instagram, and YouTube could be used to improve ESP maritime English vocabulary since the SOLAS regulation with the specific's terminologies related to that subject could be discussed easily by the maritime authorities, seafarers, maritime personnel, and so on from all over the world.. Similar research on ESP improvement revealed that social media provided a casual and supportive environment for beginning to utilize specialized vocabulary in the target language in natural contexts (Sabater & Fleta, 2015). So, from this study, the considerable pretest improvement between posttest results in the Experimental group indicated the use of social media in enhancing the ESP maritime vocabulary. To meet the objectives of English language learning, further study on the use of social media to enhance English proficiency must be done.

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