

The Effect of Using E-Mar Application with Android Based System on Students' Maritime English at Maritime Program of Politeknik Negeri Bengkalis

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Abstract— The purpose of the study is to investigate significant differences of students' ability in learning English for Maritime by using E-Mar Application. E-Mar Application is one of application which is made and used with android based system. The aspects in E-Mar Application contains of materials to be memorized is glossaries of Maritime. Those are studied about terminology of Spelling Letters in Maritime, Ship Organization, Types of Ship and Main Parts of Ship. The study of the research is a quasi-experimental research where pretest and posttest design are given in this research. The sample of this research is the second semester students of Maritime Department at Politeknik Negeri Bengkalis. There are experimental class (Nautical) and control class (Port and Shipping Management) by totaling 44 students. The data collected by using E-Mar Application in learning Maritime English. The result of this research showed that there is significant effect on implementing the treatment of E-Mar Application with Android based System on students' learning Maritime English for Experimental Group where students' mean score of experimental class is 82.78 who were taught by E-Mar Application and students in control class is 63.54 who were taught by conventional teaching. E-Mar Application is a good alternative to help students in learning Maritime English.

Keywords: Effect, E-Mar Application, Maritime English

I. INTRODUCTION

Indonesia, as known as a country with a lot of natural resources potential, especially in maritime field is the largest archipelagic country in the world. It is consisting of 17,499 islands with a long coastline of 81,000 km and its waters consist of territorial sea, archipelagic waters and inland waters covering 2.7

million km or 70% of the territory of Indonesia. There are also so many people in Indonesia works at sea, not only as a fisherman but also as seafarers. To support their skill in Maritime, so many seafarers in Indonesia are still weak in using English. They need to have many competence in maritime to be a great seafarers. One of them is English for Maritime as one of English for Specific Purposes (ESP) subject. ESP focuses the learner's attention on the language and communication requirements in a particular professional field. Maritime English is to satisfy the need of seafarers. Therefore it has its own characteristics. Indonesia has many Maritime schools. To support them, the government builds Maritime School to add the mount of professional seafarers in this country.

English for Specific Purposes (ESP) program needs to be developed for there is a need for language courses in which certain contents, skills, motivations and processes are identified and integrated into specialized courses. ESP prepares the learners to use English in academic (students of different fields), professionals (people of different professions such as doctors, engineers, nurses, and seafarers, or workplace setting (technicians for example). One of the specialized courses that meet the needs of specific skills is Maritime English. [6]

One of the problems of this English for Maritime ability can be solved by using an application which called E-Mar Application. It has been studied at Maritime Program by using Android system. Understanding the materials need creative and innovative ways in order to make students be easy to memorize the words and pronounce them well. Students are not interested using old technique in this millennial era. Youth students need new technique to study by using digital tools such as android system. One technique to learn Maritime English is by using E-Mar Application with Android based System. This application helps students in studying glossaries. The lecturer tries to find the effect of E-Mar Application with Android based System. By using it, students are able to understand terminology of Spelling Letters in

Maritime, Ship Organization, Types of Ship and Main Parts of Ship in studying while playing Android. [1]

II. LITERATURE REVIEW

2.1. Android System

Android is a mobile operating system developed by Google, based on the Linux kernel and designed primarily for touchscreen mobile devices such as smartphones and tablets. Android's user interface is mainly based on direct manipulation, using touch gestures that loosely correspond to real-world actions, such as swiping, tapping and pinching, to manipulate on-screen objects, along with a virtual keyboard for text input. In addition to touchscreen devices, Google has further developed Android TV for televisions, Android Auto for cars and Android Wear for wrist watches, each with a specialized user interface. Variants of Android are also used on notebooks, game consoles, digital cameras, and other electronics. Initially developed by Android Inc., which Google bought in 2005, Android was unveiled in 2007, along with the founding of the Open Handset Alliance – a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. Beginning with the first commercial Android device in September 2008, the operating system has gone through multiple major releases, with the current version being 7.0 "Nougat", released in August 2016. Android applications ("apps") can be downloaded from the Google Play store, which features over 2.7 million apps as of February 2017. Android has been the best-selling OS on tablets since 2013, and runs on the vast majority^[a] of smartphones. In September 2015, Android had 1.4 billion monthly active users, and it has the largest installed base of any operating system [7]

2.2. English for Maritime

There are many aspects can be explained in English for Maritime. They are about shipping, ship types, ship construction, manning, seamanship, cargo work, navigation, main engines, auxiliary machinery, maintenance, safety abroad, communications at sea, etc. In this research, the writer needs to explain about Spelling Letters, Ship organization, types of ship, and main parts of a ship. Each topic contains of many glossaries and pictures.

Maritime English is a type of specialized language used by seafarers both in the sea and in port and by individual working in the shipping and shipbuilding industry. Tenkner in Daniele [4] explains it as "The entirety of all those means of the English language which, being used as a device for communication within the International maritime community, contribute to the safety navigation and the facilitation of the seaborne trade. Daniele [4] defines. The focus of research on Maritime English has so far been mostly confined to various aspects of language pedagogy. Since communication in the maritime sector typically involves exchanges between speakers of

different mother tongues sharing English as a common language, it is understandable that a lot of attention has to be given to language instruction, so as to train seafarers and the maritime community at large towards proficiency in English.

This need has become particularly pressing after the decision of the International Maritime Organization (IMO) in 1995 to adopt English as the official language of the sea, which has led to the publication of IMO's Standard Maritime Communication Phrases (SMCP). It only stands to reason, then, that a number of ELT textbooks, course books and other materials had to be developed to meet the demands of learners in the maritime field. [3]

2.3. E-Mar Application

According to Aprizawati and Safra [1] in their journal about E-Mar Application is the abbreviation of English for Maritime Application, the Application contents are:

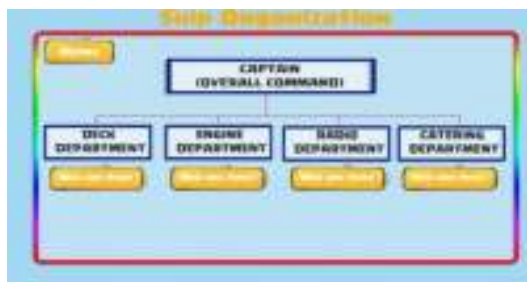
a. Those pictures are main page of E-Mar application which has started from spelling letters of Maritime English. Choose spelling letters menu.



b. This menu contains of alphabet which has pronounced the meaning of A. for example A means Alpha. It consists of 26 alphabets. You can choose next to continue the letters. Choose the menu to go back to first page.



c. The picture is ship organization menu whether to find out whose job on that organization. To find the jobs, you can click "who are here"



Click next to choose department parts. It is the parts of organization on board. We will find how many departments are on board and who they are on board.



d. It is the menu of type of ship, this contains of many kinds of board.



e. Main of parts consists of parts on board.



III. METHODOLOGY

The method that be used was Experimental research which was aimed to test an idea (or practice or procedure) to determine whether it was influenced an outcome or dependent variable. [2]. L.R Gay [5] said that An experiment is the quantitative approach that provides the greatest degree of control over the research procedures. This research used experimental design with nonequivalent control group which was an

appropriate one to this research in order to find out the significant effect of using E-Mar Application with Android based System to learn English for maritime of students at State Polytechnic of Bengkalis.

This research consists of two classes. One class is an experimental group which treated by E-Mar Application with Android based System and another one is as a control group taught by using non E-Mar Application with Android based System. For both experimental and control groups, pre-test and post-test administered to the students. Pre-test was given at the beginning of the teaching learning in order to identify the students' English for Maritime glossaries. Then, the experimental group was given a treatment by using E-Mar Application with Android based System and the control group using non E-Mar Application with Android based System. During the treatment, the writer accompanied by an observer, and at last, both groups was given post-test at the end of the teaching learning processes in order to determine the effect of using E-Mar Application with Android based System to learn Maritime English of students at State Polytechnic of Bengkalis. The model of the research design is illustrated as follows:

TABLE .I The Research Design

| Group | Pre-test | Treatment | Post-test |
|--------------------|----------|-----------|-----------|
| Experimental group | Test 1 | X | Test 2 |
| Control Group | Test 1 | – | Test 2 |

Source: John W. Creswell [3]

IV. FINDINGS AND DISCUSSION

In order to investigate the effect of using E-Mar Application with Android based System, the data was analyzed by using t-test formula. The researcher used Lilliefors testing for analyzing the normality testing at the level of significance 0.05. Variance Formula was used to test homogeneity testing. The data analysis can be seen from the table below:

**Table 1
Result of t-test
for experimental and control group**

| Class | N | Mean | Standard Deviation | Minimum | Maximum |
|--------------|----|-------|--------------------|---------|---------|
| Experimental | 27 | 82.78 | 5.4 | 67 | 83 |
| Control | 27 | 63.54 | 4.83 | 50 | 68 |

The table shows that the total students from each group was 27, the mean score of experimental group was 82.78, and mean score of control group was 63.54. Standard deviation from experimental group was 5.40,

while standard deviation from control group was 4.83. From the output above, it also can be seen that $t_{\text{observed}} = 2.09$ compared to t_{table} . The level of significances 0.05 was 1.708. It can be concluded that $2.09 > 1.708$ ($t_{\text{observed}} > t_{\text{table}}$). Therefore, null hypothesis (H_0) was rejected, while the alternative hypothesis (H_a) was accepted. It means there was a significant effect of using E-Mar Application on students' grammar ability.

This finding was line with Aprizawati [1] statement that E-Mar application is assumed as a good media to teach the students in learning Maritime English. In this study, English for maritime application was created for using on android system. The E-Mar Learning was using b phone to make students or other user in the world are easy in learning it. This E-Mar learning consists of Spelling Letters, Types of Ship, Ship organization and Parts of Ship. The result was the using of E-Mar learning with android based system gives effective way of studying because it can motivate the students to learn Maritime English easily and practically.

V. CONCLUSION

Based on the research finding above that was conducted students at the Maritime Program of State Polytechnic of Bengkalis, it can be concluded that students' who were taught by E-Mar Application had better Maritime English ability in learning than students' who were taught by Conventional Teaching. Students' mean score of experimental class (82.78) who were taught by E-Mar Application was higher than

students in control class (63.54) who were taught by conventional teaching. E-Mar Application is a good alternative to help students in learning Maritime English. This technique makes students be interested in learning Maritime English especially basic glossaries. It is suggested that this technique can be applied and recommended to use by English lecturer.

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