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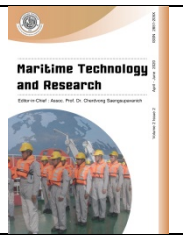

Research Article

A study on improving Maritime English performance among cadets at maritime universities

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Abstract

Many studies have been conducted to help improve student performance in academics. Either tested practically or scientifically, both have been implemented. Until now, there has been no ultimate teaching style to ensure student performance in academics while maintaining their motivation to study. This is because students differ in their natural ways of learning. This study was conducted at the University of Malaysia Terengganu (UMT), among Nautical Science and Maritime Transportation students. In this study, research on improving student performance in Maritime English has been conducted. The current system of the learning and teaching process of Maritime English at UMT was determined in this research and, in order to evaluate the current proficiency in Maritime English, content analysis has been used to analyze their final examination paper. Additionally, interview sessions were conducted with a selected expert to obtain a recommendation on how to improve the performance of students in Maritime English. The subjects were among the first-year students of the Bachelor of Nautical Science and Maritime Transportation program. At the end of the research, this paper gives a recommendation on how to improve performance in the learning and teaching processes of Maritime English courses for students at maritime universities around the world.

1. Introduction

While in the field of English subject there has been a wealth of research carried out and been made available, this has not been the case for Maritime English (ME) courses. Renowned researchers such as Blakey (2004) and Pritchard (2003) are among those researchers that have shown interest in improving the level of English language within the maritime industry. The necessity for the establishment of Maritime English (ME) resources and materials has also been discussed at many conferences, as well as through a number of projects on Maritime Education and Training (MET). However, the focus of these studies lies in the development of vocational, rather than academic, language courses, which aim at standard competence in the use of Maritime English onboard. They are, thus, mainly concerned with seafarers, and their needs for a common language which is essential to avoid accidents at sea. Only a few studies have been done on the language

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competence and skills that maritime university students need to acquire in order to deal successfully with their academic studies, as well as with the challenge of a potential shoreside career path (Kourieos, 2015).

Maritime schools today are faced with the challenge of developing seafarers with high standards of competence and professionalism with good English communication skills (Jomarie, 2015). As one of the maritime universities in Malaysia that are able to train seafarers, it is important to ensure that UMT does not face the same problem. We must ensure the learning and teaching process of Maritime English can help Nautical Science and Maritime Transportation students become competent graduates with high proficiency and knowledge in Maritime English.

Objectives of studies

The objectives of this research are as follows:

1. To determine current teaching methods and subjects related to Maritime English in the UMT Nautical Science syllabus;
2. To analyze common mistakes made in Maritime English terms among UMT Nautical Science students, and
3. To recommend ways to improve the Maritime English learning and teaching process for UMT Nautical Science and Maritime Transportation students.

Significance of the study

This research is worthy of interest because:

1. It will raise awareness with concerned parties in this issue;
2. It may improve the learning and teaching process of Maritime English at UMT, and
3. It will deepen knowledge of the field and allow for further research.

Literature review

English in the shipping industry is known as Maritime English, and the teaching of the subject at all maritime colleges, institutes, and universities worldwide is governed by the IMO Model Course 3.17 (Maritime English). Consequently, this standard document has set a standard for the English language to be taught and mastered, so as with the STCW convention (Trenkner, 2002; Pritchard, 2005; Takagi et al., 2007).

English has been set as the language of the sea at an international level and is used in all situations, such as ship-to-ship, ship-to-shore, and onboard. However, nowadays, ship crews are multi-national, instead of being from a single nation. Unfortunately, ship owners and shipping companies often seem to overlook basic issues like the training of the seafarers. Employing seamen from different nationalities brings different standards of training onboard ship, regarding both where Maritime English is concerned in terms of SMCP, and for the level of knowledge regarding STCW, SOLAS, MARPOL, and others. Along with this, cultural attributes that are brought by these seamen give a more complex extent to the use of the maritime language onboard (Apostol-Mates & Barbu, 2015). Therefore, seafarer ability to communicate to an acceptable standard of English is very essential and important in the present industry, especially onboard ship.

The increasing number of accidents being caused by or related to the poor level of Maritime English onboard ship or in ports has increased concern in all categories of the maritime industry, including seafarers, ship owners, shipping companies, and maritime institutions around the world (Rashed, 2010). Additionally, there are people (especially students of maritime universities from many countries where a different language is used to teach) who have trouble understanding the importance of speaking English.

This is the main reason for teachers or lecturers from maritime universities all over the world to try their best to explain to students the importance of knowing and being fluent in Maritime English. It is also worth noting that new learners of a language really need to build a solid

foundation of knowledge, and it is useful for them that all of their teachers know and have mastered Maritime English. It should become really easy for them to use some important maritime terms used daily onboard ships and in any type of communications (Popescu & Varsami, 2011).

2. Materials and methods

The first step was to determine the current teaching methods and subjects related to Maritime English in the Nautical Science UMT syllabus. Both primary and secondary data were used to achieve the first objectives. Observations and discussions with a few lecturers were held to determine the current teaching methods of Maritime English related subjects. Also, the researcher used secondary data by analyzing which subjects were related to Maritime English by referring to material, such as lecture notes and the content of the subjects. From this, the first objective data were collected and analyzed.

The second step was to find a common mistake in Maritime English terms used by Nautical Science and Maritime Transportation students. Secondary data were used by analyzing the final examination paper of first-year students in Nautical Science. The final paper on Maritime Safety Management and Risk Analysis (MNS4207) for semester 2, session 2016/2017, was used to determine the mistakes that the students made in using Maritime English terms. The final answer was supposed to be confidential, but for the sake of academic and research purposes, the researcher was given permission to use it for the research. The Content Analysis method was used to analyze the data from the data collected. Conventional Content Analysis involves coding categories that are derived directly from the text data, which are used to provide results for the second objective.

The last step was to suggest ways to improve Maritime English learning and teaching processes with Nautical Science UMT. Interview sessions were held with a few selected experts. The experts were divided into 2 categories, former mariners and scholars. The experts were chosen after a discussion with the author's supervisor. The opinions and suggestions on ways to improve the Maritime English learning and teaching processes that the researcher obtained from interviews session were collected as primary data. Thematic Content analysis was performed on the data from the interview sessions. This is probably the most common method used in qualitative research. It aims to find common patterns across a data set. This method follows a few steps:

- Getting familiar with the data (reading and re-reading).
- Coding (labelling) the whole text.
- Searching for themes with broader patterns of meaning.
- Reviewing themes to make sure they fit the data.
- Defining and naming themes.
- The write-up (creating a coherent narrative that includes quotes from the interviewees).

Using this method, the third objective was easily attained.

3. Results and discussion

Currently, Nautical Science and Maritime Transportation of University Malaysia Terengganu (UMT) uses 3 methods to teach Maritime English related subjects to students, which are a mix of Teacher-Centered Approach and Learner-Centered Approach; a Global Maritime Distress Safety System lab and a Full Mission Ship Bridge Simulator are also used to support Maritime English courses. Lecturers use these 3 ways to teach the students. In the next section, the whole method will be discussed and further explained.

Teacher-Centered approach and Learner-Centered approach

Conventional teaching (called a Teacher-Centred Approach) is concerned with the teacher or lecturer being the controller of the learning environment. Power and responsibility are held by the lecturers, and they play the role of instructor and decision-maker in the classroom. In the

conventional approach, lecturers will provide information and knowledge from the course or subject to the students. Each of those subjects contains topics to be covered in class, one after the other.

The focus of the learning and teaching process in conventional approaches is on giving students a lecture or an article to read and then testing them by giving them set questions based on the information given earlier. The expected solutions to the questions are usually limited to the information given to students. Additionally, solutions to the question are pre-determined, or have scheme answers made by the lecturer, and are linked to specific learning objectives.

The modern method of teaching (the so-called Learner-Centred Approach) is different from the conventional method in terms of content, teaching and learning, classroom environment, assessment, and use of technology. In the Learner-Centred Approach, teachers and students play an equally active role in the learning and teaching process. The teacher's primary role is to coach and facilitate student learning and overall material for teaching. Student learning is measured through both formal and informal forms of assessment, including group projects and class participation. Teaching and assessments for students are connected, and student learning is continuously measured during teacher instruction.

Some advantages of the Learner-Centered Approach are improved levels of student engagement in the classroom, better development of soft skills, and increased motivation. This method needs the students to be more active, and the learning and teaching process is 2-way, meaning the students are encouraged to ask any question directly when the lecturer is teaching.

In the light of the Teacher-Centred Approach and the Learner-centred Approach, **Table 1**, below, shows how both approaches can benefit students.

In Nautical Science and Maritime Transportation of UMT, both approaches or methods have been applied to the various subjects taught by the lecturers. There are lecturers that use the Teacher-Centered Approach, while others use the Learner-Centered Approach. It depends on the subject and the suitability of their styles. Both methods are important to ensure student performance in academic subjects, especially in Maritime English-related subjects. As a result, most of the graduates from Nautical Science have good performance in their academic achievements.

Global Maritime Distress Safety System Lab

Nautical Science UMT has its own GMDSS Lab. This GMDSS Lab is used for students to learn about many types of distress communication equipment, such as Digital Selective Calling (DSC), Emergency Position Indicating Radio Beacon (EPIRB), Search and Rescue Transponder (SART) and others, and how to use them. In this GMDSS Lab, students are taught to use the equipment by using proper Maritime English. In a distress situation, a distress call must be made using proper Maritime English to ensure the message can be understood and be clear in order to avoid communication failure. Therefore, in this GMDSS Lab, the teaching of Maritime English has been applied. As we all know, proper Maritime English is key to successful communication in the maritime industry.

Full Mission Ship Bridge Simulator

UMT has a Full Mission Ship Bridge Simulator, which is managed by the Nautical Science and Maritime Transportation Department. Some of the subjects that use simulator training are Bridge Watch-Keeping, Bridge Resource Management, and Shipboard Management. Students are given a chance to practically apply all the knowledge that they learn in class. The simulator at UMT is divided into 3 rooms, which are the briefing room, the main simulator room, and the part-task room. This simulator has full function and equipment, like a real ship. Therefore, students can practice manoeuvring ships in this simulator while practising communicating in Maritime English. A good application of Maritime English in the simulator is needed to make sure of the efficiency of communication between master, officer on watch, helmsman, and cadet on the bridge.

Table 1 Teacher-Centered approach and Learner-Centered approach.

Teacher-Centered approach	Learner-Centred approach
Content	
Established by curriculum and all learners study the same topics at the same time.	Based on the curriculum but students are allowed numerous choices in a topic of study.
Limited access to information.	Infinite access to information.
Learners work to find correct answers.	Work to construct any one of the possible correct answers.
There is little focus on applying facts or concepts to a variety of real-world situations.	More focus on applying concepts to a variety of real-world situations.
Topics of study are typically isolated and disconnected from each other.	Learners study content in a way that shows connections between subjects.
Instruction	
The teacher is the information giver and helps learners acquire skills and knowledge.	The teacher is the helper to guide learners to apply skills and construct their own knowledge.
Learning starts with what learners do not know.	Learning starts with learners' previous knowledge.
Teaching is an instructive process.	Teaching is a constructive process.
Classroom environment	
Learners learn passively in an often silent classroom.	A classroom is an active place where various activities are held.
Learners usually work individually.	Learners often collaborate with classmates and teachers.
Assessment	
Learners take exams, silently and alone. The questions are kept secret until test time, so learners have to learn all the material, even though only part of it will be tested.	Learners know how they will be assessed, have input into the criteria by which they will be assessed, receive feedback from the teacher, and have multiple opportunities to assess their own learning.
Teachers are primarily accountable for learner learning.	Teachers and learners share accountability for learning and achievement.
Learners are motivated by the desire to get good grades and to gain rewards.	Learners are motivated to learn because of interests and to gain knowledge
Technology	
Teachers use various kinds of technology to explain, demonstrate, and illustrate various topics.	Learners use various kinds of technology to conduct research, communicate, and create knowledge.

Subjects learned that are related to Maritime English

There are a few subjects taken that are related to Maritime English, or where Maritime English terms are applied during learning. This research determined these subjects; after analysis, the subjects related to Maritime English areas are shown in **Figure 1**, below.

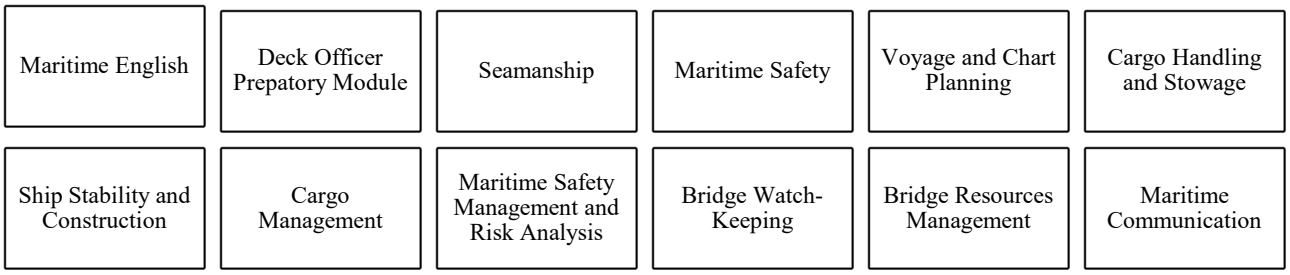

Figure 1 Subjects related to Maritime English.

Wrong Maritime English terms used by students

From **Table 2**, we can see the students are using many wrong Maritime English terms. These mistakes were made by different students, rather than a single student. The patterns of the wrong terms used were random, which means there was no specific maritime section, such as safety or navigation, where they occurred. Why did the students make mistakes? Is the current learning and teaching method in Nautical Science and Maritime Transportation not good enough for the students? Based on the previous objective, it has been proven that the current system was already good enough, as Nautical Science and Maritime Transportation of UMT have varied their teaching methods.

However, our data shows there is still room for improvement to help the students achieve better understanding and knowledge in using Maritime English terms. This will be discussed in the following section.

Table 2 Wrong Maritime English terms used.

Wrong term	Correct term
Tuck boat	Tugboat
Offshore safety authority	Port Authority
Firehouse	Lighthouse
Barging area	Berthing area
Bulking the oil	Bunkering the oil
Drawing out water operation	Deballast operation
Ship's body	Ship's hull
Fell down from the ship	Man overboard
Depth of vessel	Draft of vessel
Floor	Deck
Throw anchor	Let go anchor
Fuel split	Fuel spills
Ship's burned	The ship's on fire
Rope breaking	Rope parting
Snap zone	Snapback zone
Stone	Rock
Coordinate of the ship	Position of the ship
Road of the ship	The course of the ship
Leave the ship	Abandon ship
Map	Chart

Recommendations to improve Maritime English (Learning and teaching process)

1. Former mariners

(a) Use of former mariners as ME lecturers

The lecturers that teach Maritime English must be include former mariners, as they have professional competence plus experience to teach Maritime English. Former mariners are users of Maritime English and, of course, they have higher knowledge in Maritime English compared to common language lecturers. Additionally, they have valuable experience working at sea, that cannot be learned by books.

b) Full English Language used in teaching ME

Maritime universities need to upgrade the English proficiency of their students in order to help them attain the required communication skills while in the performance of their duties and responsibilities in this industry. The lecturers should teach all of the nautical related subjects in full English Language, even where the students are non-native speakers of English.

c) Use of IMO SMCP when teaching

Standard Marine Communication Phrases (SMCP) from the International Maritime Organization (IMO) must be used by all institutions, lecturers, or instructors of ME course as a guideline when teaching Maritime English or related subjects.

d) Student Competence

General English helps students to cope more easily with all the situations they face while learning all related nautical subjects. Students who take Maritime English need to build a strong foundation in General English before mastering Maritime English.

e) Communicative Approach

The learner must speak practically using correct Maritime English terms when they study or practice in the bridge simulator or GMDSS Lab. This allows use of the Communicative Approach to communicate practically, as in real situations of communication onboard ship.

f) Onboard Experience

The greatest knowledge comes from experience. By working onboard, where most of the crews are multinational, in a matter of time, it is expected you can easily master Maritime English by regular re-training of language skills.

2. Academicians

a) Importance of reading

Our brain is very smart and, by keeping on reading related material, a person can improve their newly learned language. Experts believe that, by always reading, someone can improve rapidly in learning a new language.

b) Lecturers' roles in varying the method of teaching

Students get easily bored and lose their focus when lecturers teach them in a conventional way. By using technology, student interest in learning will increase, as it makes the learning process more fun and interactive.

c) Extended hours of learning English

Maritime institutions must play their part in helping students. Mastering General English is essential before the further learning of Maritime English. The hours for English courses must be

extended to a suitable level to ensure students keep learning English. Thus, it will be easier for them to learn Maritime English.

d) Surrounding yourself with native speakers

The environment is a factor that affects student proficiency in English. To master English, students can socialize with a native English speaker.

e) Importance of self-motivation

Although various methods are used by lecturers to help students master and learn, if students themselves do not want to learn, then it will be difficult. Students are advised by the expert to have a sense of determination and a desire to learn to master English, so that they can learn Maritime English.

4. Conclusions

Although teaching methods at UMT are improving, there are still some students who make mistakes in using Maritime English terms. This proves that there is still room for improvement. In UMT, Maritime English is currently under the Maritime Management Department, and the lecturer who teaches this subject changes each semester. This situation is not good, as we can see how important this subject to students who study in the maritime course. The competence of the lecturer is also unknown in terms of their experience in the maritime industry. Therefore, Nautical Science and Maritime Transportation Department must take immediate action in this matter. They must take responsibility for this subject and bring it to their department. Nautical Science Department has many competent lecturers that have qualifications and are willing to teach a Maritime English course. This issue must be solved quickly to ensure the students are able to learn proper Maritime English in the future. In the end, I hope this research will be helpful in improving Maritime English education and for other researchers who are willing to do further study on this topic.

References

Apostol-Mates, R., & Barbu, A. (2015). Is Maritime English the key in solving communication problems within multinational crews? *International Conference Knowledge-based Organization*, *21*(2), 541-544. doi:10.1515/kbo-2015-0092

Bocanegra-Valle, A. (2014). *The language of seafaring: Standardized conventions and discursive features in speech communications*. *European Journal of English Studies, 11*(1), 35-53. doi:10.6018/ijes.11.1.137091

Kourieos, S. (2015). Investigating Maritime students' academic and professional language skills: A needs analysis. *English for Specific Purposes World, 47*, 1-25.

Navarro, J. D., Garbin, Z. Z., Agena, E. M., & Garcia, O. B. (2015). Maritime students' English proficiency and their feedback on instructional materials. *Asia Pacific Journal of Maritime Education, 1*(1), 63-81.

Pritchard, B. (2003). Maritime English syllabus for the modern seafarer: Safety-related or comprehensive courses? *WMU Journal of Maritime Affairs, 2*(2), 149-166. doi:10.1007/BF03195041

Rashed, S. K., & Kamal, A. E. K. (2010). *Maritime English holds a great stake in the both safety and security of merchant vessels*. In Proceedings of the 22nd International Maritime English Conference, Egypt, pp. 1-13.

Rippert-Davila, S. (1988). Reviewed works: Welding by Linda L. West; English for Maritime Studies by T. N. Blakey. *The Modern Language Journal, 72*(1), 85-86. doi:10.2307/327590