

A Comparative Review between the English Language Programs of Maritime Institutes in Korea and Europe

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Abstract : *This paper compares the English language programs of two maritime institutes in very different parts of the world, South Korea and Belgium. It will show that although both institutes comply with the minimum standard set by the STCW Code issued by the IMO, course contents and requirements can vary greatly. Method of class delivery, choice of learning tools and testing will be examined to illustrate some of these differences. This paper will show that in order to train new seafarers in the best possible way that will fulfill the IMO mandate of Safer Shipping and Cleaner Oceans, continual review and development of course curriculum should be an ongoing process that focusing on encouraging cadets to communicate in a targeted, efficient and professional way within a nautical context. This paper will show by comparison the huge potential that the Korean Maritime English program has for positive change and growth.*

Key words : *Maritime English, Safety, Communication, Life-long learning, Practical skills.*

1. Introduction

This paper will review the pressing need for all trainers of seafarers to consider the heavy responsibility of providing quality instruction to young cadets who are preparing for work at sea. It will show how despite satisfying international standards there is still a disparity between maritime training institutes around the world, especially in the field of maritime English and particularly the practical application of this essential skill. This will be achieved a comparison of the various approaches used for teaching language and the expected outcomes from the curriculum of two countries. The Mokpo National Maritime University in Korea and the Antwerp Maritime Academy in Belgium will be used as case studies to illustrate these differences.

Recent comparative studies between Korean maritime institutes and other Asian academies have been published that compared the entire curriculums to illustrate the social climate of two countries and the attitude of the maritime community in relation to the programs offered (Dimailig et.al. 2010). In furtherance of this important study this paper will highlight one very important aspect of the curriculum where English is not the first language, Maritime English (ME). Empirical data by the use of survey results will support the need for continual review and development of present language programs within a maritime curriculum.

The various methods of Maritime English training suggest that certain regional conditions may affect the perception of how and why Maritime English is being taught.

2. Literature Review

It is widely known within the maritime industry that some 93% of accidents and incidents are directly related to the human element and that 40% of these are related to problems in communication (Kluijven, 2009). According to the principle author of IMO SMCP, “more than 86% of all SOLAS vessels are presently crewed with multilingual personnel who, for diverse reasons, are frequently unable to render the Maritime English Skills required” (Trenkner, 2007). All personnel within the maritime industry have a responsibility to ensure these statistics continually decrease. However, it is the trainers of seafarers who must accept the greatest responsibility since it is they that are in the best position to remedy the situation. Despite a widespread recognition that safety at sea and competency in English are inextricably linked, it is often the technical side of training rather than the acquisition of linguistic competence which is seen as a priority at maritime institutes. The following conventions and regulations adopted by the IMO clearly demonstrate the position held by such governing bodies on the importance of English to the maritime industry:

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The SOLAS Convention – Regarded as the most important of all international treaties concerning the safety of merchant ships, the main objective of the SOLAS Convention is to specify minimum standards for the operation of ships, and their safety. Chapter 5, Regulation 14.4 reads,

“On all ships, to ensure effective crew performance in safety matters, a working language shall be established and recorded in the ship’s log-book. English shall be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications as well as for communications on board between the pilot and bridge watch-keeping personnel, unless those directly involved in the communication speak a common language other than English” (IMO, 2011).

The importance of having a working language is emphasized. Therefore, if there is more than one nationality represented on board then English must be used as the common working language.

STCW 95 – The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, sets qualification standards for masters, officers and watch personnel on seagoing merchant ships. Regulation 1.14 requires companies to ensure that seafarers assigned on board ships can effectively co-ordinate their activities in emergencies and in the performance of functions vital to safety. This implies the ability to communicate effectively in a common language (STCW, 2011).

Officer of the Watch, GMDSS radio operators, Engine Watchkeepers – IMO regulations require the officer be fluent in English. This is required for a number of reasons, such as to use charts and nautical publications, understand weather and safety messages, communication with other ships and coast stations, and to be able to work with multi-lingual crews.

The ISM Code – The ISM Code provides an international standard for the safe management and operation of ships. In chapter five, article 6.6 we note that the Company should establish procedures by which the ship’s personnel receive relevant information on the SMS in a working language or languages understood by them. Article 6.7 also states that the Company should ensure that the ship’s personnel are able to communicate effectively in

the execution of their duties related to the Safety Management System. The ability of crew members to communicate effectively is fundamental to the safety of the ship. This should be assessed at the recruitment stage and manning agencies should be vigilant in this exercise (ISM, 2011).

Although it is clear from the above that maritime English must be an essential part of any seafarers’ curriculum the reality is that those entering this specialized career are often unprepared in this area. According to an author of the IMO Model Course 3.17, some widespread issues in the provision of maritime English training at academies include the lack of, a) time allocated to Maritime English, b) up-to-date resources integrating Maritime English content with the Communicative Approach to language learning, c) time to develop practical skills of listening and speaking, and d) exam systems evaluating spoken competence. She states,

“Seafarers may therefore graduate with an excellent passive knowledge of Maritime English but without the practical (active) ability to use the language confidently and fluently in routine and emergency situations” (Logie, 2007).

Unfortunately, this tends to be a common situation in many Asian countries where practical skills are generally less developed than theoretical and grammatical aspects of the language.

3. Case Studies

In order to illustrate some of the differences in maritime English programs, two academic schools were chosen: Mokpo Maritime University in South Korea and the Antwerp Maritime Academy in Belgium. They were chosen because they are both STCW compliant and include Maritime English in their programs of study and in both institutes English is not the first language of the cadets.

Antwerp Maritime Academy or Hogere Zeevaartschool (HZS) is the only college in Belgium offering training in nautical sciences and marine engineering. There are 319 Dutch students and 348 French students, bringing the total to 667 students of which 9% are girls.

There are 41% foreign (non-Belgian) students from 25 different nationalities (HZS, 2011). Education at the Antwerp Maritime Academy aims at two careers: one at sea as a merchant marine officer, becoming a Captain (Master) or a Chief Engineer; the other is an on-shore career in a

nautical-economic or nautical-technical function. The academy was founded in 1834. Mokpo National Maritime University (MMU) is one of two maritime institutes in the Republic of Korea with a similar mission to that of HZS. Mokpo National Maritime University was founded in 1950 and gained university status in 1993. The following table below shows some of the main differences between the two institutes related to their language training programs. This will be followed by a brief discussion of each aspect.

Table 1 Possible Differential Factors Affecting ME

	MMU	HZS
Course Duration	4 Years	3 years
TOEIC Required	Yes	No
Entry level English ability	Low	High
Distance from IMO	Far	Near
Access to ME resources	Inadequate	Adequate
Curriculum Emphasis	Written reports / Test scores	Practical testing / Life-long learning
ME Credit weighting	Low	High
Number of ME Hours	Insufficient	Sufficient
Qualified ME Instructors	No	Yes

Like most degree programs in Europe, the three year duration means that students are fully occupied learning relevant skills needed for their future careers. In Korea, following the American system of a four year program, students have more time to fit in various activities that may or may not be directly related to a career at sea.

The largest difference between the English programs of the two institutes in the author’s opinion is the inclusion and prominence of an English listening and reading test called the Test of English for International Communication (TOEIC) in Korea. This test which has gained immense popularity in Korea and Japan is hardly known in Europe. However, it is given great importance for such events as entry and graduation into university as well as recruitment and promotion. It has therefore become a ‘high-stakes’ test whereby students are forced to spend huge amounts of time and money attaining a high score. Although the MMU curriculum does not presently include compulsory TOEIC classes, students spend much of their free time and focus on gaining a high score. One recent study showed that an

average student had spent between 200 and 250 hours on the TOEIC since entering the university. See Figure 1 below. It must also be noted that the test requires no speaking at all but rather is totally made up of multiple-choice questions. Further it contains no maritime content. In contrast, the HZS curriculum contains just Maritime English classes and there are no requirements of taking external examinations. The students are allowed to focus only on relevant material that will prepare them for a career at sea and they are tested on this by the use of practical oral exams.

The secondary education system of South Korea uses a primarily teacher-centered approach. This has worked well for the learning of mathematics for example, but when students are expected to take on a more active and self-reliant role as needed for life at sea, they often come into trouble. The passive nature of students continues into university and is perpetuated by the use and focus of, among other things, the above mentioned TOEIC test. Students may have a superficial knowledge of some basic grammar in English but lack even rudimentary speaking skills. This poses a great difficulty when trying to teach Maritime English and SMCP which requires more than just a basic English ability.

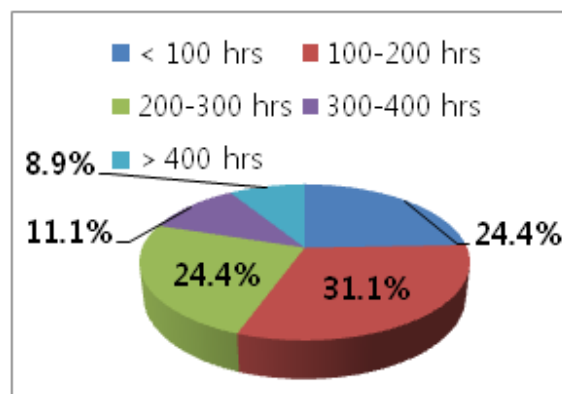


Fig. 1 Number of hours spent on TOEIC

In contrast, cadets that start attending HZS are expected to be at the ‘lower intermediate language’ level as described in current professional literature concerning ‘English as a foreign language’ (HZS, 2011). Students that are below this level have the opportunity to take a supplemental class as a refresher course in English. All students are expected to continually improve their spoken English ability for their future careers.

One of the major differences between the two maritime institutes is their location. Being in Asia, MMU may be at a

disadvantage compared to HZS which is located near the IMO and other maritime organizations. The countries in Europe are often at the helm of up-to-date information and innovative ideas. The opportunities for maritime trainers at MMU to attend relevant conventions and seminars are naturally restricted due to location. One of the effects of location is that obtaining up-to-date materials for teaching are not so easy. The price of importing EU approved resources for cadets and teachers may also hinder the improvement of English language tools available. In order to overcome this staff need to be encouraged and financially assisted to attend and keep contact with their relevant counter-parts in Europe. The HZS currently utilizes such resources as the Maritime English IMO Model Course, English for Seafarers by Marlins as well as English Grammar in Use by Cambridge. Throughout the English syllabus focus is constantly put on “achieving a command of spoken English relevant to life at sea” as well as “encouraging self-motivation and home study” and developing an “international, multi-cultural mindset”. Such buzz words and expressions are very much in-line with IMO ideals.

Due to a predominantly teacher-oriented focus within class in Korea the cadets of MMU are expected to listen and memorize facts in order to pass written examinations as well as write numerous reports. The importance of report writing and written exams is paramount to graduating. When we take a look at the curriculum for HZS we immediately notice for nearly all subjects the inclusion of oral exams in addition to written ones. This focus on the oral skills of cadets is especially important when it comes to Maritime English as the cadets learn to use in practical ways the knowledge they learn in class.

Unlike the curriculum at HZS, a course called Conversation English is compulsory for MMU cadets. This is a special feature found in most Korean universities where freshman and possibly sophomores are required to attend a general English conversation class conducted by a ‘native-speaker’ of English. The teachers hired for this purpose are often unqualified as teachers and have no maritime experience whatsoever. They are often hired on an annual basis with a high turnover. (Noh, 2010). Although cadets can possibly improve their confidence in speaking English the lack of relevant content to a potential seafarer means that students are not using their time in the most productive way. In contrast, the HZS hires qualified foreign teaching staffs that have experience and a passion for maritime topics. The cadets therefore improve their language

knowledge in specific ways and their general conversational ability naturally improves.

In order for cadets to understand the importance of Maritime English and be able to use English in a professional setting early on the institute needs to add value to the course by increasing the number of class hours and the credit weighting. By comparing the chart below it can be seen that HZS gives Maritime English significance within the curriculum by assigning as many hours and credits, if not more, as other technical courses. After looking at Table 2 we initially see that MMU provides more hours of English training with a similar credit weighting as HZS. However, after closer inspection if we compare the most important Maritime English program we see that HZS constantly focuses on providing industry specific training as well as allocating it many credits.

Table 2 English Curriculum Breakdown of MMU

Year 1 Semester 1 & 2			
Course Name	Credits	Hrs/Week	
English Conversation (1,2)	2	2	
General English (1,2)	2	1	
Year 2 Semester 1			
Course Name	Credits	Hrs/Week	
Practical English (1)	1	2	
Year 2 Semester 2			
Course Name	Credits	Hrs/Week	
Practical English (2)	1	2	
Maritime English	3	3	

Table 3 ME Curriculum Breakdown of HZS

Year 1 Semester 1 & 2			
Course Name	Credits	Hrs/Week	
Maritime English (1)	7	3	
Year 2 Semester 1 & 2			
Maritime English (2)	4	1.5	
Year 3 Semester 1 & 2			
Maritime English (3)	3	1	

From the above comparison it can clearly be seen that although both maritime institutes are each STCW compliant and both are doing their best to provide the maritime

industry with qualified seafarers, there are some major differences in the way that the subject of Maritime English is approached and the methods of teaching and testing is carried out. It is also seen that from various parts of the curriculum that the competencies that are expected of cadets also differs.

4. Survey results

Although it is clear that the Belgium training philosophy of Maritime English are more in-line with the ideals of the IMO, it must also be recognized that the Korean maritime educational system also has its strengths. If the South Korean educational systems are already providing well-qualified seafarers to the Asian shipping industry and the cadets in training are satisfied with their programs of studies then maintaining the status quo may be in its best interests. However, if deficiencies are found by the shipping companies and if cadets are not satisfied about the level of their training it would be most prudent and cost-effective to examine areas where adjustments could be made.

Here are some relevant results that were collected after analyzing the data of over 200 surveys that were filled out by senior cadets in 2010. They had already undergone at least 6 months of onboard training with a shipping company.

As was mentioned in the previous section, MMU cadets receive English Conversation classes by native speakers that have no maritime background and possibly no formal qualification for teaching EFL. Item 16 on the survey asked students to agree or disagree with the following statement: *the English conversation lessons I took while at university were very helpful for my on board life*. The respondents had already completed these courses prior to their on board training. 29% said that they “strongly disagreed” with the above sentence along with another 28.1% who also “disagreed”. The respondents that neither agreed nor disagreed were also 28.1%. Of those that agreed with the above sentence, 7.1% “agreed” and 6.3% “strongly agreed”.

A One Sample T-Test was then employed to analyze the statistics. The Null (H_0) hypothesis used was that the English conversation lessons that were taken while at university were perceived as helpful for life on board. As can be seen in Table 5 the Test Value was set at 4. This represents the opinion that “agrees” with the statement in Item 16. As can be seen from the p value of <0.05 , there is a statistically significant difference of opinion between the Null hypothesis and the cadets. This means that H_0 can be

rejected and it can be confidently stated that the English conversation classes provided at the institute are not perceived as being helpful for life on board by the senior cadets.

Table 4 Item 16 One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Item 16	210	2.29	1.155	.080

Table 5 One Sample Test Item 16

	Test Value=4			
	t	df	Sig.(2-tailed)	Mean Difference
Item 16	-21.507	209	.000	-1.714

The English conversation classes provided by the maritime institute have been running for approximately 5 years now and were originally for freshmen cadets only. Later, it was felt that cadets following the navigation course should continue these classes during the second year of training. These classes are given by “native speakers” from various countries and hired on a temporary annual contract. The instructors are not required to have any special teaching qualifications or experience in the maritime field. The turnaround of teachers is very high with new teachers starting each year. The content of lessons tends to be very general in nature and therefore relevance to the maritime industry would be very limited.

From the data results it is clear that over half of all cadets felt that these lessons were not useful for life on board. Even though these conversation classes are of a practical nature, the lack of maritime content would seem to be the main reason for this result. Even though a majority of ships are crewed by more than one nationality and therefore general conversation skills would help to improve the social climate on board it can hypothesized that respondents feel that the specific needs that are required by the job are of utmost importance. This supports the need for a re-evaluation of not just the use of the TOEIC but also the entire language training program provided by the institute in order to create industry specific learning that will enable seafarers to be successful in their chosen career.

Also mentioned in Section 3 was the fact that cadets at MMU are under continuous pressure to attain a high score

on the Test of English for International Communication. Although a separate speaking test was recently developed cadets are not required to have this score. The score they need to attain is from listening and reading and is totally multiple-choice in format with no practical oral skills required or maritime content.

The following two items asked questions about possible changes to the graduation and recruitment requirements. Item 10 stated: *If the TOEIC requirements for graduation and recruitment were replaced with a maritime English speaking test, I would be very motivated to improve my English speaking skills.* 24.4% strongly agreed with this along with a further 31.1% that also agreed. 26.7% were unsure whether they agreed or disagreed, while just 8.9% disagreed and another 8.9% strongly disagreed. When asked to agree or disagree with Item 11, which stated, *if entering a good shipping company was heavily dependent on practical maritime English, I would be very motivated to improve my English speaking skills,* 22.2% strongly agreed that they would. A further 26.7% also agreed while 31.1% neither agreed nor disagreed. 17.8% disagreed along with a further 2.2% who strongly disagreed. The Item responses were split into high and low test scores and the results can be seen in Tables 6 and 7.

For Item 10 and 11 an Independent Sample T-Test was carried out. The Null Hypothesis for these two items was that those cadets who had already achieved a high TOEIC score would *not* be motivated to improve their English speaking skills. It was assumed that since high scoring students had already invested much into the test and therefore were almost guaranteed a good job, they would be less motivated to improve their speaking skills. The results are shown in Figures 2 and 3.

Table 6 Group Statistics Item 10 & 11

TOEIC score	N	Mean	Std. Deviation	Std. Error Mean	
Item 10	High	27	4.19	.834	.160
	Low	18	2.56	1.042	.246
Item 11	High	27	3.89	.974	.187
	Low	18	2.89	1.023	.241

Table 7 Independent Samples T-Test Item 10 & 11

	t-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Item Equal variances assumed	5.811	43	.000	1.630	.280
Item Equal variances not assumed	3.308	43	.002	1.000	.302

The scores of the cadets were used as the independent variable. The grouping variable was set as High test scores (>550) and Low test scores (<550). As can be seen from the p-value of 0.000 for Item 10 and 0.002 for Item 11, the difference between the two groups of test scores is statistically significant showing that cadets with high scores “disagree” with the Null hypothesis. It can therefore be assumed that cadets with higher TOEIC scores would be motivated to improve their English speaking skills if the test was replaced than those with low scores. It was also apparent from the results that those cadets who had not achieved a high test score may not be so motivated, therefore the mean of their answers tended to disagree with the two items.

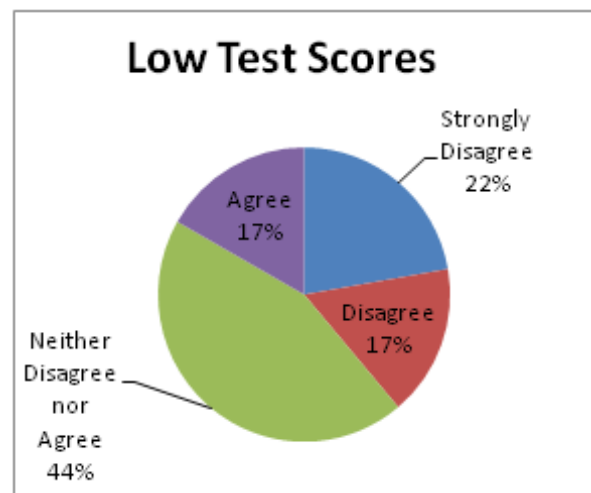


Fig. 2 Low Test Score Results Item 10

The purpose of these two items was to see if cadets would be more prepared to improve their practical maritime English skills if more was required. The results suggest this to be true and that if simple adjustments were made to the present curriculum and recruiting policies cadets would be

encouraged to focus on spoken skills in a practical setting. Although change may be difficult the apparent long-term benefits of improved maritime safety would soon show as substantial pay-offs.

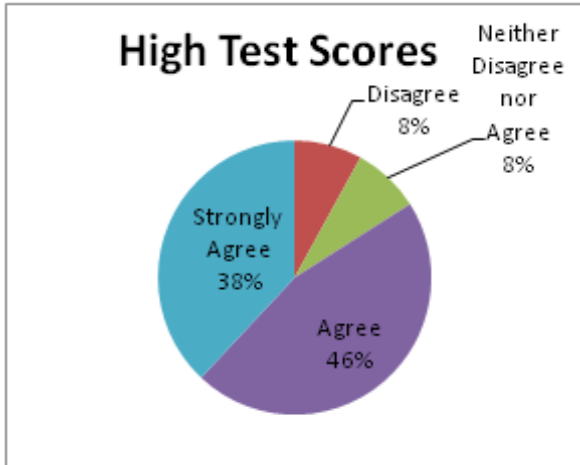


Fig. 3 High Test Score Results Item 10

5. Conclusion

Using two maritime institutes from different locations in the world and comparing the methods of maritime language training has provided us with insights into the extent that there are differences in educational methods throughout the maritime industry. Although both schools are STCW compliant and regularly undergo auditing it has been shown the emphasis at HZS is more towards the practical and life-long learning philosophy whereas MMU presently favors written tests with less practical application. It was shown that possible reasons for this may be cultural and include the impact of a test known as the TOEIC which presently consumes much time and resources despite its limited intrinsic value to the development of good seamanship.

By reviewing the data from MMU senior cadet surveys it also appears that the students themselves desire a change away from the present system to one that empowers them to be fully qualified for the work that they must do.

Whether or not the stated competencies of HZS are in fact developed in all the graduating cadets would need to be the subject of further independent research. However, it can be clearly seen from the course details that the skills learnt during the 3 year training period are certainly valuable and very much in line with IMO ideals. This may be due to the fact of being in close proximity to the IMO and having more contact as well as having a longer tradition of maritime

education compared to that of South Korea. Whatever the reasons, a comprehensive program of practical Maritime English must surely be the ultimate goal for all maritime institutes and trainers as they continually apply themselves to providing the industry with competent and experienced seafarers.

References

- [1] Dimailig, Jeong, Kim (2010), "Comparative Review of Maritime Transportation Education between Korea and the Philippines", *Journal of the Korean Society of Marine Environment & Safety*, Number 16, pp. 71 - 80.
- [2] Hogere Zeevaartschool Website, (2011) Retrieved from http://www.hzs.be/html_EN/ontdek-studieaanbod.html
- [3] IMO. (2011), SOLAS Convention, retrieved from <http://www.sailing.org/downloads/sailors/SOLASV.pdf>
- [4] ISM Code. (2011) IMO, p. 7 & 8, retrieved from http://www.dft.gov.uk/mca/ism_i2s_2009.05_ch05.pdf
- [5] Kluijven, P, van. (2009), "Speaking Up for Seafarers", *Nautilus*, p. 31 retrieved from <http://home.planet.nl/~kluij016/NautilusMyArt2.pdf>
- [6] Logie, C. (2011) "Breaking Down the Barriers of Culture", *Nautilus*, February 2011, p.23. Retrieved from <http://home.planet.nl/~kluij016/TelegraphCathLogie.pdf>
- [7] Noh, Davy. (2010), "A Basic Study on Maritime English Education and the need for Raising the Instructor Profile", *Journal of Navigation and Port Research*, vol. 34, No. 7, p535.
- [8] STCW. (1995) IMO, "International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 as amended in 1995, retrieved from http://www.gmint.com/gmint/filebank/msd_notice_19.pdf
- [9] Trenkner, P. (2007), "The IMO Standard Marine Communication Phrases", *Alert! The International Maritime Human Element Bulletin*, Issue No. 14, p.3, retrieved from <http://he-alert.org>

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