CHALMERS
UNIVERSITY OF TECHNOLOGY

The International Maritime Lecturers Association
28th International Maritime English Conference (IMEC)

PROGRAMME

19-22 September 2016
GOTHENBURG- SWEDEN

Maritime English across the domains:

Cross-curricular integration of teaching and learning activities

Organized by
Chalmers University of Technology

The Department of Shipping and Marine Technology
and
The Department of Applied Information Technology
The Division for Language and Communication
Gothenburg – Sweden

Welcome to the 28th IMEC at Chalmers University of Technology
19 – 22 September, 2016

Early registrations – The IMEC28 Local Organization Committee invites delegates to early registrations, mingle and **cocktails on the 18th of September at Port Arthur** (and the Dockers House) **at 18:30**. Please see the maps on the last page of the programme. Port Arthur will also be our venue for IMEC28.

Maps and transportation – Port Arthur is within walking distance from Campus Lindholmen (detailed map on the last page). From downtown, please take either the free (during working hours) ferry no. 286 over the river, from stop **Stenpiren** to stop **Lindholmspiren** and walk 5-7 min, or take bus 16 from **Nordstan** to **Sannegårdshamnen**. Locations on the map at the end of this document. Timetables, prices and other information on http://www.vasttrafik.se/#!/en/tickets-and-prices/6/

NB! From the airport there are buses (https://www.flygbussarna.se/en) to take you to town. You will be travelling from Landvetter Airport to Nils Ericsson Terminalen. Ask the driver to give you an additional ticket, free of charge, valid for two hours on any bus/tram in Gothenburg. This way you will arrive to your hotel 'for free'. The busdrivers will only accept card payment. You can also pay cash at the Pressbyrån shop in the arrivals hall, though, and as you show that ticket to the drivers, they will issue the additional ticket for Gothenburg buses/trams. Buses from the airport will leave every 15 min on Sunday, September 18th and every 10 min on the Monday.

Please note that bus/tram tickets cannot be purchased on buses/trams. One can either buy them at Pressbyrån (small shop that pops up everywhere) or one can download Västraffik ticket app called ToGo and buy tickets with your phone. A three day ticket will cost 170 sek. One fare costs 28 sek.

Downtown Gothenburg is on the other side of the river from Campus Lindholmen and most of our hotels/hostels on the other side of the river are located close to city center. The free ferry no 286 is very convenient as one can walk from **Stenpiren** to most attractions downtown within 10-20 min. Delegates staying at the hostels are a bit further away, though.

Facebook – We kindly ask participants to join **The International Maritime English Community** on Facebook and register for the event **IMEC28 – Chalmers – Gothenburg.** We are going to organize activities and keep track of your preferences via doodles that will be published in the event. Our lunch menu is also published there via doodles, and delegates can choose their preference of the day. Changes in the programme will be published in the same event. Please keep track! If you do not have a Facebook account, just contact us and we will find another way to keep you informed. Information will also be posted continuously on computer screens in our conference hall.

Proceedings – According to Chalmers sustainability plan, we will distribute the proceedings of IMEC28 on usb memory sticks. If you would like to have a hardcopy of the document, please let us know in advance. If you need a copy of your article prior to your presentation or if you need to print additional material, please send an e-mail with the documents to annamaria.gabrielli@chalmers.se

Logistics – The programme, as you can see below, is divided in 60 min sessions, with two paper presentations per session (2x20min), or three my practice presentations (3x10/15min), or one workshop (1x40min). All sessions include time for questions and discussion 20 minutes. We also have a Round Table Discussion of 40 minutes overall. The chair of each session will advise on this. Timing is very important.

Wednesday lunch – On Campus Lindholmen we are very grateful to have Ester´s school for future (outstanding) chefs. Therefore we have booked a three course lunch on Wednesday at Ester's, and it will be served by students of upper secondary school. A very pleasant experience we hope, and a chance to have a break from shipping topics, perhaps? "Hone" your English and get ready to order!

Dinner – Our conference dinner, with typical west coast dishes, drinks and entertaining will be held at the House of William Chalmers on Wednesday, September 21st, 18:30. The house of William Chalmers is within walking distance from ferry stop Stenpiren or bus stop Brunnsparken. We will keep you informed. After the dinner we invite you to the dancefloor, with the drinks at your own expense. The bar will only accept card payment.

Do not forget that our **contact** e-mail is imec28.ait@chalmers.se or annamaria.gabrielli@chalmers.se. In case of emergency call +46 70 41 57 567

Welcome to Gothenburg!

TIME	Monday SEPTEMBER 19, 2016	
08:30 Late registrations 09:00 OPENING CEREMONY	Welcome to Port Arthur and the Dockers House – Ms Catharina Olesen, owner of Port Arthur Opening speeches – **Lennart Josefson, head of the Department for Shipping and Marine Technology; Magnus Gustafsson, head of the Division for Language and Communication** An address from the Chair of the International Maritime English Conference **Clive Cole** Navix Maritime Chartering AB – **Mats Andersson, Kjell Frömyhr** Keynote:– **Carmen Chirea Ungureanu** **Conference photo** **Christian Badenfelt** **Text Data**	
11:00	**Coffee break**	
11:30	Keynote/Workshop: Cross-curricular integration of teaching and learning activities: inventorising dimensions, affordances, challenges, and advice **Magnus Gustafsson and the Division for Language and Communication**	
12:30	Lunch at Port Arthur	
13:30 Papers	Considerations Regarding the Application of IMO Maritime English Model Course 3.17 in Korean Contexts **Seunghee Choi, Jinsoo Park** Cross curricular/cross course adaptation, design and implementation of teaching and learning activities of Maritime English **Josephine Mabuti Nthia**	CHAIR: Associate Prof. Clive Cole
14:30 Papers	Lexico-grammatical Patterns in SMCP and VTS Textbooks Used in ~~China and~~ Korea **Mi-Lim Ryoo** CLIL : Integrating General Maritime English and Naval History **Alcino Ferreira**	CHAIR: Ms Catherine Logie
15:30	Coffee break	
16:00 My Practice	"Use of English" in the Maritime English classroom **Casilda Garcia de la Maza** Maritime English Seminar with Instructors from MAAP in Philippines and Introducing into Curriculum at Maritime Technology Department in Five NIT Colleges in Japan **Osami Yanagisawa, Jane Magallon, Tomo Murakami, Seiji Simizu, Jinsoo. Park, Hiroyuki Sakauchi** Using group work to build competence in maritime English for the teacher and learner **Paula Rice, Margrethe Bakke**	CHAIR: Prof. Dr. Naoyuki Takagi
17:00	Delegates at leisure to visit downtown Gothenburg	

TIME	TUESDAY SEPTEMBER 20, 2016	
09:00 Research results Papers	Chalmers for a sustainable future – the Maritime Sector **Bo Norrman** Communicative competence under STCW 78, as amended, and its application in China's Maritime Education & Training **Quan Li, Ran Dai**	CHAIR: Prof. Jinsoo Park
10:00 Papers	Maritime English Training for Chinese ratings **Mary Liu** (presented by Ms Lillian Holland) A needs-based instructional material in English 1 for Filipino maritime students **Diana Rose Esmero, Levi Esmero**	CHAIR: Ms Jane Magallon
11:00	Coffee break	
11:30 My Practice	Using problem-based learning to facilitate realistic maritime communication **Alison Noble, Pieter Decancq** Practice of Practical Marine Engineer English **Hyun-wook Doo**	CHAIR: Ms Josephine Mabuti Nthia
12:00 Workshop	The cruise ship passenger: the forgotten communication partner? **Ludwina Van Son**	CHAIR: Ms Seunghee Miriam Choi
13:30	Lunch at Port Arthur	
14:30 Papers	English as a medium of instruction at MET institutions **Johan Hartler, Annamaria Gabrielli, Rebecca Bergman, Christopher Anderberg, Lars Axvi** Where Asian Cadets meet European Officers - an intercultural analysis of the language and culture related challenges cadets face **Peter Björkroth, Tristanti Agasta**	CHAIR: Ms Alison Noble
15:30 Research results Marlins	About autonomous sailing - the future of seafaring and seafarers **Peter van Kluijven** The employers' perspective: how companies adopt English testing in seafarer recruitment **Catherine Logie**	CHAIR: Prof. Dr. Carmen Chirea Ungureanu
16:30	Coffee and mingle	
16:00	Delegates at leisure to visit downtown Gothenburg	

TIME	Wednesday SEPTEMBER 21, 2016	
08:30 Parallel Workshops Please meet us 08:15 in the lobby in house Patricia	Set up your first Maritime English course using Moodle **Alcino Ferreira** (computer room in house Patricia) How to run the bridge – a realistic introduction to the bridge simulator **Lars Axvi** (Bridge Simulator in house Saga) How to run the Engine room – a realistic introduction to the engine room simulator **Johan Eliasson** (Engine rooms Simulator in house Saga)	Chair: Mr Peter Björkroth CHAIR: Captain Johan Hartler CHAIR: Mr Hampus Rischell
10:00	Coffee break	
10:30 Parallel Workshops Please meet us at 10:15 in the lobby in Patricia	Set up your first Maritime English course using Moodle **Alcino Ferreira** (computer room in house Patricia) How to run the bridge – a realistic introduction to the bridge simulator **Lars Axvi** (bridge simulator in house Saga) How to run the Engine room – a realistic introduction to the engine room simulator **Johan Eliasson** (engine room simulator in house Saga)	Chair: Mr Peter John CHAIR: Captain Johan Hartler CHAIR: Mr Hampus Rischell
12:00	Lunch at Esters	
13:30 Round Table	Discipline and Academics - do they mix? **Peter Björkroth**	CHAIR: Associate Prof. Magnus Gustafsson
14:30 My Practice Paper	Practising verbal maritime communication with computer dialogue systems using automatic speech recognition **Peter John, Jan Wellmann, Jens Appell** Advantages or disadvantages? Foreign-Born Professors Teaching at Maritime Institutions and Private Colleges in USA **Qi Chen, Tracy Wang**	CHAIR: Ms Lillian Holland
15:30 Paper My practice	Preaching the gospel of the SMCP in Spain: The Jovellanos Centre experience **Jose Manuel Diaz Perez** Workshops on the Use of the SMCP for VTS and Maritime Rescue Coordination Centres (MRCCs) for th det e Spanish Maritime Safety Agency **Uwe-Michael Witt**	CHAIR: Mr Peter van Kluijven
16:30	Coffee	
Conference dinner The house of William Chalmers 18:30		

TIME	Thursday SEPTEMBER 22, 2016	
09:00 Papers	Developing and validating a universal Maritime English Proficiency Test for Deck Officers **Carolyn Westbrook, Peter John** A Study of the Intelligibility, Comprehensibility and Interpretabilit y of Standard Marine Communication Phrases as Perceived by Chinese Mariners **Lillian Holland**	CHAIR: Ms Michelle Myriam Desrosiers Senatus
10:00 Workshop	Conceptualizing and Planning Simulator Training or Simulation Exercise for Maritime English **Jane Magallon**	CHAIR: Dr Gabrielle Knufman-Kempers
10:45	Coffee break	
11:15 Papers IMEC news	Productivity on the Stage **Müjgan Özenir** An address from the Papers and activities Committee, **Alison Noble** The IMEC28 questionnaire, **Yuki Takagi**	CHAIR: Alain Brillault
12:00 Workshop	Medical Emergency Communication Exercise Preparation **Naoyuki Takagi**	CHAIR: Captain Jorge Imhoff
13:00	Lunch at Port Arthur	
14:30	**Prof Dr Peter Trenkner** sums up IMEC28 Closing address	CHAIR: Associate Prof. Clive Cole
15:00 Round Table	Invitation to IMEC29 - Jinsoo Park, Seunghee Choi, Korea Institute of Maritime Fisheries and Technology (KIMFT) and Korea Maritime and Ocean University, Busan, Rep of Korea	
16:00	*Maritime English across the domains* Foot note on IMEC28 *How to best implement communication and how to best twin language learning and technical content in Maritime Education and Training programmes around the world*	Johan Eliasson
16:15 Closing Ceremony	Clive Cole – closing of IMEC28 Lennart Josefson Magnus Gustafsson Distribution of certificates **Conference Photo**	 Ms Annamaria Gabrielli

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International Maritime English Conference
IMEC 28 (19 – 22 September 2016)
Chalmers University of Technology – Gothenburg, Sweden

Where Asian Cadets Meet European Officers - An Intercultural Analysis of the Language and Culture Related Challenges Cadets Face

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Abstract

When cadets do on board training they face a lot of expectations. Apart from the practical skills they are expected to acquire, they also have to work with more theoretical matters e.g. in their training record books (TRB). The TRB includes tasks that require them to find out facts concerning the specific vessel they presently are working on. This means they probably need to be able to communicate with the ship's crew. When the superiors are European, cultural and communication issues may arise between the cadet and the rest of the crew. The communication problems may then reflect on the performance of the cadet and be interpreted as lacking knowledge or skills.

In this paper we explore feedback given to Indonesian cadets. We study a few cases in depth, and try to analyse the text from our respective cultural backgrounds. There is thus a hidden agenda in the paper - it does not only show how we as ME teachers interpret the comments of a shipmaster, but also give different interpretations on a situation; one Asian and one European interpretation. We provide “rich ethnographic material” consisting of pictures, documents and quotations. This paper adds to the discussions about interpreting cultural and communication related break downs.

keywords*: cross-cultural communication, onboard training, ethnography*

Introduction

This paper takes its beginning from a message that one of the authors recieved from a manning company in Indonesia. One of the authors is responsible for the placement of cadets for their onboard training. The message was that one of the shipping companies that the academy

sends cadets to, was unhappy with the quality of cadets. This came as a surprise for Ms T since it was the first time such reports had reached her. A meeting was called in order to discuss the, for the academy, alarming news. During the meeting the second author, Mr P, got upset, and felt that the European manning company representative gave irrelevant feedback in an offensive way. This gave rise to the question: how do Asians, in this case Indonesians, react to the feedback and is there a difference between the reactions of Asians and Europeans? The question reflects dilemmas in cross-cultural communication and is interesting because the answer can give insights into the maybe more important question: is the message transmitted by the European construed, by Asians, in the way it was meant to be?

When considering the latter question, an ocean of theoretical issues opens up, i.e. questions about what affects the interpretation of a message. This paper builds on dilemmas in connection with unequal power between the two parties in the meeting and later, in the feedback forms from the European vessels. The European manning company representative had an enormous power surplus over the STIP representative. Some of the features that establish power differences are listed below with the manning company's position (feature) first:

- Male – Female
- Employer – employee
- (Maritime) Industry - (maritime) education (the maritime industry is hierarchical and male dominated)
- European - Asian
- Coloniser – Colonised (Indonesia has been independent around 70 years)
- Wealthy - less wealthy (narrowly viewed)

The list may not be complete, but it consists of strong denominators of power. The manning office representative, judging from the features mentioned above, thus had power especially over the female school representative from Indonesia, and he could put forward his opinions and ideas as if they were facts. The opinions could only be accepted, taken for representing 'the truth'. Here the postmodern idea behind this paper comes in:

"… it is not the case that knowledge is power, but power is knowledge. Meaning, those people who have power (social, political, etc.) always decide what will or will not be counted as "knowledge." [1]

It is difficult for the less powerful to oppose views of the more powerful. The occurrences during the meeting were so stunningly clear examples of how the power imbalance affected

communication and interpretation, that it will be described in more detail as a moodsetter for this paper.

This paper is thus inspired by postmodern thought. Postmodernism is difficult to define and the concept is under constant debate. We do not claim to be familiar with the vast philosophical discussions that lie behind postmodernism (see e.g. https://en.wikipedia.org/wiki/Postmodernism for an idea about the complexity), but one fundamental idea is central to this paper. Postmodernism stresses that it is not possible to pin down "reality" in an objective way, but rather that phenomena such as experiences and meaning are relative and subjective. The relativity is relevant for this paper since we present two interpretations of the same situation - it should be stressed that neither of the interpretations is better, or closer to the truth, or more objective than the other. The idea with this paper is to show the two different interpretations of the same. The previous paragraph on 'power' is included only to show what reasons there might be for biases to believe in one interpretation rather than in the other; the powerful present the 'truth'.

Method and idea

In ethnographic research the focus lies on understanding a certain social situation in a culture. The method's origin lies within early anthropologists who spent long periods of time e.g. with remotely living tribes or people. Nowadays the method is used for describing or de-cyphering also micro cultures, such as the culture of a shipping company, the safety culture on a vessel, or, as in this paper, the social situation where Indonesian cadets are to do, and have done, onboard training on vessels of a non-Indonesian shipping company. A prerequisite for quality ethnographic research is extensive notes from the field. Suggestions for what can be collected are [2]:

- Space - physical layout of the places
- Actor - Range of people involved
- Activity - A set of related activities that occur
- Object - the physical things that are present
- Act - Single actions people undertake
- Event - Activities that people carry out
- Time - the sequencing of events that occur
- Goal - things that people are trying to accomplish
- Feeling - emotions felt and expressed

The paper takes its beginning in a meeting with a crewing agency. The meeting can be said to somewhat reflect the circumstances facing Indonesian cadets when they join a crew with European or East European officers - the cadet often has to travel a longer time (c.f. below: our car ride to the office), the cadet will meet people to him unknown, he will come to a surrounding where he is subordinate and where his own language is not spoken. The cadet may further feel inferior to the crew meeting him, since he has very limited knowledge about life and work onboard, just as someone from a school can feel inferior when going to a manning company: the manning company has the power to choose from where they take their cadets, they should have more knowledge about the quality of the cadets and they will be using the language they normally use, i.e. English. The meeting with the manning company is thus here used to set scene for the discussions in this paper.

After we set the scene, we continue by discussing the answers in the questionnaires we sent out to two shipping companies. The questionnaires are discussed from two different perspectives: Indonesian and Finnish. The discussion is built on a few questions the authors decided upon before doing the analysis. The idea with the questions was to show how the cadets have been treated onboard, and how we interpret the answers.

After the discussions on the meeting with the manning company and on the cadets, we go on with a more general discussion on how English, culture and communication affects successful onboard training. The discussion is built on the Training Record Book used at the STIP and the tasks in it.

Visit to a Crewing Agency

It is a normal hot February day in Jakarta. We set off to town for two meetings, one with a company whose pilots will be trained at the academy and one with a manning company that recruits cadets for some Dutch companies. Because of a misunderstanding we are a bit late. It does not take long before we are stuck in traffic. Even though our driver is the academy's driver, experienced and well acquainted with Jakarta traffic, we will probably not make it on time to both our meetings. The driver takes an alternative route through the narrow streets full of shacks, shops, motorcycles, people, cars and street mongers, but it does not help. Ms T decides to skip the meeting with the pilot company - the meeting was only a first, more ceremonial kick-off for the training. We head straight for the manning company.

It is hot outside and the car's air-con is appreciated. Occasionally we are surrounded by motorcycles and trucks until the young men who work as traffic police, or traffic lights maybe, can sort the situation out. They are covered with dust, and they protect their faces with sunglasses and scarves. It must be hard work to stay focused on the traffic all day, and focused they must be - how could they otherwise stand in the midst of the traffic without getting run over? Slowly, as we work ourselves through the busy parts of town, traffic evens out when we approach more modern streets. Wider and with newer buildings. Up on a small hill, a modern office building towers up (Fig. 1)[1]. It looks like a small skyscraper - glass covered and alone. The glass has a blue shimmer and the building is surrounded by a small green area with well attended lawns.

fig 1. Office building where manning company's office was located.

The area stands in sharp contrast to the busy streets we have just left. Here everything is calm, quiet, clean and, also to my non-Indonesian eyes, orderly.

The driver leaves us at the entrance and drives off to the parking. We are met by security guards and guided into a wide lobby. In the lobby we undergo more security and move on to a reception desk. Ms. T has forgotten her wallet at the office so I must give my identity card to the receptionist. She explains I will get it back when I return the visitors' card she gives me. The card we must use in order to be able to use the lift and to get to the right floor. Before the lifts,

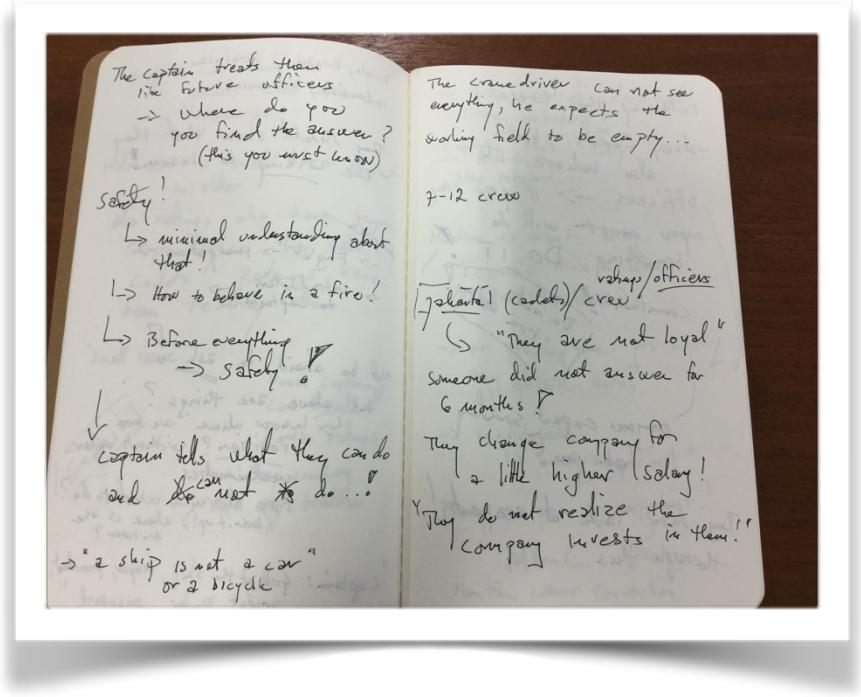
1 Interesting enough - the building appears to represent post-modern architecture! https://www.flickr.com/photos/sauer-thompson/3124028220

we must be let through a kind of a gate. Again I use the visitors' card, but since Ms. T has no card the receptionist has to assist. We take the elevator up and enter a floor where a few offices are separated from the elevator area by glass walls. One of the offices is our destination. Again a lobby, a receptionist and a waiting area meet us. We are asked to sit down.

The receptionist disappears for a while before she returns and invites us to meet the local manning company executive. We are guided to another room separated by glass walls. This is a meeting room - a long table with maybe 14 chairs around it awaits us. In the centre of the polished table a few standards from different organisations stand, among others the STIP flag. We sit down in comfortable fake leather chairs after the manager has asked us to. There are only three of us, so we sit at one end of the table - Ms T at the very end, the manager facing me while I sit with my back towards the window. After the receptionist has asked us what we would like to drink, she leaves us. We exchange some small talk and the manager, Mr F, tells he is from East Europe. Since I happen to have been in the town where he used to work earlier, and know that there are many manning companies active there, we talk about that for a short while. Ms T then opens the discussion about our real reason for the visit: there have been some complaints about the standard of the STIP cadets that have been serving on some of the Dutch vessels that the manning company selects the crew for. Mr F begins what seems to me like a long monologue about cadets, seafarers, language skills, knowledge, practical skills and so on. While he is talking he wants to make his talk more convincing and give it more credibility by planting some facts about himself and his experiences in the text. He served in the navy, he was onboard a navy vessel for maybe 6 months, he recovered from seasickness, he says one must work first and pray later, he studies the Indonesian language and finds it important to make an effort in language studies. I am surprised about where the discussion goes. I feel I have heard the discussion before and recognise what is said, but somehow I am surprised over how un-nuanced the comments are. It strikes me that the manager must be talking about not only the possible challenges with the STIP-cadets, but about all his own frustration! When I later check my field notes this is verified. Several issues can have absolutely nothing to do with the second year cadets and their sea project, i.e. their onboard training! In my notes I read about complaints about how officers and crew hired by the manning company “have not been loyal” to the company, and how “they change company for a little higher salary” and that they do not know that “the company invests in them”. Retaining crew is a common problem within the shipping industry, at least during good times when jobs are available. It is in no way an Indonesian problem and I have experienced the same frustration when working with crewing in a Finnish shipping com-

pany. The comments of the manning company executive are thus more a result of general frustration and cannot have anything to do with the cadets from the academy - the cadets are second year students doing their first onboard training! I feel anger arising and start to lose trust in the manning officer. I wonder if my colleague Ms T feels the same frustration and anger as I do…

fig 2. Field notes made during meeting with manning company



STIP-Cadets onboard

Prala (Praktek Laut, Indonesian) or the program of apprentice on board ship has become one of the most important tasks for cadets who are prepared into skilled seafarers at sea. After the prala, the cadets must and should be able to deal with all seafaring work and be able to cope with the problems at sea and work together with all fellow officers and crew. Safe operation of the vessel depends on the effectiveness and efficiency of communication on board ship, where seafarers are required to be able to communicate linguistically, cross-culturally, and interpersonally.

One issue, which needs to be taken into consideration by the government, is sending well-educated workers abroad as seafarers, either as a ship's officer or ordinary crew. There are many

Indonesian seafarers who have worked abroad on commercial ships today. This is a result of the recent development, when many foreign companies began to look at a market segment of sailors from Asia (China, India, Indonesia, Myanmar, the Philippines, Thailand, Bangladesh, and Vietnam). Indonesia is very seriously developing maritime education to provide employment opportunities for its people. Indonesian seafarers/cadets can compete with others from the mentioned countries when it comes to ability, patience and hard work, especially if they are equipped with the mastery of a foreign language (English).

The Apprentice Program/On board Training is one of the phases that must be passed by the cadets in the maritime education. The training is crucial for a cadet because it is a moment where and when the cadet can try to apply theoretical education in practice. In addition, the cadet is forced to, on their own, tackle the problems of navigation and ship machinery. The training is 12 months long and performed on commercial ships. Nowadays cadets are willing to do their training on foreign ships. And from a very beginning, those cadets keep the desire to become seafarers in foreign going ships and to have a career in the foreign shipping company. So far, there are many reasons for this: the first is about the money matter. They know that if they can join a foreign ship, they will get their salary in dollars, not in Indonesian rupees. Secondly, they want to travel to foreign countries for free. And the third is that the cadets are willing to experience working together with foreigners on board. They want to know how the foreign people manage the work on board and the cadets want to improve their English language. And, as a consequence, cadets must have the ability to adapt to a variety of situations and different characters from many nations and languages in order to be able to function properly.

This research was conducted to highlight some problems that arise and to begin the process of finding out what must be considered by the cadets during the training to prepare them as well as possible for their on board work. Especially the impact of cultural barriers in the success of the learning process during the on board training is opened up for discussion. Taking into account the rules and the culture of a company, duties and responsibilities of each crewmember, the cadets' communication skills and the cultural background of each crewmember.

Methodology

Cadets, seamen, teachers, and shipping companies were included in this study. The study was conducted with qualitative methods. Questionnaires were distributed to 10 vessels where STIP-

cadets have served. We received seven answers, a result we find meets our needs - the purpose was not to do a quantitative study, but rather to better understand the message we received during the manning company meeting and to get it in writing. The written answers were then compared with the feedback from the manning company. The feedback was written and sent to us by e-mail. Five questions were included – it was not important to thoroughly investigate what the shipmasters' thoughts, but rather to get an overall understanding of whether the attitude towards the Indonesian cadets was generally positive or negative. The questions can be seen in Figure 3, and at the same time, an idea about the quality of the answers can be formed.

fig 3. Questions and example of answers

QUESTIONNAIRE FOR OFFICERS

1. Have you experienced with Indonesian cadets or officers on board ship?
   Yes.
2. What do you think about their performance on board ship?
   In general I am satisfied with their work.
3. What do you think about them?
   Executive officers and cadets. With a good theoretical training.
4. What kind of difficulties or problem you found during working with them?
   Basically havent any difficulties.
5. What do you expect from those cadets?
   To be more active. To demonstrate their potential as future officer.

After receiving the answers we decided not to analyse them together, but rather to do two separate interpretations of them. The idea is to give an idea about whether we understand them differently. We approached the questionnaires individually. We had agreed on a set of questions and decided to write two separate sets of answers in order to make it possible for the reader to compare our answers. This was one purpose of this paper and the idea is to see if the interpret-

ers' different cultural backgrounds will affect the interpretation of the answers. The questions we used for analysing the questionnaires were:

1. What is your general opinion on the feedback and assessment from the vessels? Why?
2. What kind of relationship do you think the officers and the cadets have had? Why?
3. Do you think the officers have seen the cadet make mistakes repeatedly? Why?
4. Do you find the opinions and assessments trustworthy? Why?
5. What worries you most, from the cadets' point of view, in the assessments? Why?
6. Is something in the assessments rude or offending? Why?

In the following chapter we present our interpretations of the feedback.

Interpretations of the Feedback

The answers were typically short, even though there are a couple of exceptions. Here our interpretations of the answers are presented.

Question number 1: What is your general opinion on the feedback and assessment from the vessels? Why?

Finnish interpretation:

The feedback is fairly normal. The assessment varies a lot, from "*The theory given at the time on campus is not enough to be implemented on ship. Their performance should be improved."* and "*Practical knowledge and skills are at low level."* to *"In general I am satisfied with their work.*" I think the assessment is leaning towards the negative, but in my experience students doing onboard training rarely get a lot of positive feedback apart from comments on a positive attitude. It is also difficult to say who the Indonesian cadets are compared with. Thus, if the feedback says "average performance", who performs above average?

Indonesian interpretation:

In general, the feedback from the vessels is not really satisfying. I am not really happy to read them, and I realise that those cadets need much improvement on their performance, such as their

communication in English, theoretical knowledge and also their attitude. I never knew that some of them lack English skills and do not understand some commands in the SMCP or reading manual books properly until the vessels sent me the reports. I think the feedback is good to evaluate our way of teaching with or our educational standard so in the future the cadets' performance will match with the companies' expectations. The school needs to give priority to what the crucial improvements are.

Question number 2: What kind of relationship do you think the officers and the cadets have had? Why?

Finnish interpretation:

The relationship between the Indonesian cadets and the officers seems to have been good. Comments such as "*Good cooperation with crew and officer*." and "*On a personal level they are friendly and cooperative."* give me the impression that they get along well on board. A phrase that would seem to suggest the opposite is a remark on the Indonesian cadets' smoking: "*It is recommended to Indonesian academy to draw attention to the fact that majority of Indonesian seamen are really hard smokers, even youngsters."* Of course the comment can be given from a health perspective, but I read it as something that has affected the relationship onboard. The officer has grown irritated on the smoking and takes the opportunity to remark on it here. Smoking is a lot more common in Indonesia than at least in Western Europe, so for me the comment is almost expected. The social norms on when and where to smoke are really different in Indonesia and e.g. Finland.

Indonesian interpretation:

Mostly our cadets believe that relationships on board the vessel are built on strict hierarchy, that their position is below the crew and they must respect the senior officers or crew. Respect here, in the cadets' mind or in dormitory, sometimes means keep a distance, not to be too close to someone who has higher rank/position, feeling afraid of making any mistakes or will not say/do anything if they are not asked to do so. So, the relationship among the cadets and the officers much depends on the officers, whether the officers want to be close to the cadets or not. The initiative will come from the officers. From the feedback I see that some of the officers want to have a good relationship with the cadets, by approaching them, treat them as young and inexperienced seafarers Like the statement: "*On a personal level they (cadets) are very friendly and co-*

operative… All this is showing the importance of their time on board as cadet and of the mentor." For me, this statement shows that he does not only rely on the cadet's own willing to become a good seafarer, but also depend on how the mentor could treat/train the cadets. It means that he also wants to give a chance for the cadet to get/have a good mentor. But on the other hand, some of the officers seem to not have close relationship with the cadets. Like in the statement: *"..... but some of them claim that he came to become an officer and he is angry to do anything on deck...."* In my opinion, the cadet will not be angry to the officers if there is no misunderstanding between them. I think there were some miscommunication before which leads the misunderstanding between them. It is a matter a communication and relationships. That is why then the cadets not really talk or only speak quietly in front of the officers. Perhaps it is also caused by their poorer English communication. They will never succeed to build good relationship on board ship if the communication is being the obstacle among them.

Question number 3: Do you think the officers have seen the cadet make mistakes repeatedly? Why?

Finnish interpretation:

I do not read any mistakes in the comments. My impression is more that the cadets show insecurity in their performance. The officers react on this insecurity. I do not think cadets are allowed to make mistakes, i.e. the officers will first see to it that the cadet is able to perform a task and only then let the cadet do it. When the cadet shows hesitance or something the officer interprets as insecurity, the officer will not let the cadet perform the task and this is the interpreted as incompetence by the officer.

Indonesian interpretation:

Yes, I think the officers have seen the cadets make mistakes repeatedly. They mostly say that the cadets must improve their skills and knowledge, read the books or manuals besides working on their Training Record Book (TRB). The cadets must be active and demonstrate their potential. Some of the officers really pay attention on the TRB. They check the cadets assignments and monitor the progress of their tasks. That's why the officers could give detailed comments on those matters. I believe that the officers sometimes test the cadets' ability by challenging them to do tasks on their own. But unfortunately sometimes the cadets cannot do it because they do not read the books/manuals.

Question number 4: Do you find the opinions and assessments trustworthy? Why?

Finnish interpretation:

Yes, I find the comments trustworthy. I think this is because the observations seem to match my preconception about what and how the officers will comment. As I expected, many of the answers include comments such as " *More initiative; More confidence; More activity"* or "*They do not show enough initiatives and logical thinking."* I believe this is cultural difference and a communication related problem.

Indonesian interpretation:

In general, the opinions and assessments are trustworthy because I think there is no interest for the officers to say something unreal. But it cannot be denied that there might also be subjectivity in assessing cadets during their time on board, perhaps because of tiredness or factors of closed-emotional relationship between the officer and cadet causing less objective comments on the performance of the cadets. Not all officers wrote the description of the cadets in detail while they interact on board ship. This may be because the officers did not have much time to achieve a personal relationship with the cadets so that they don't know much about the cadets' abilities, or did not have much time to evaluate the cadets' activity continuously, such as a short comment of the officer: *"Their performance is average" or " in general normal apprentice...*"

Question number 5: What worries you most, from the cadets' point of view, in the assessments? Why?

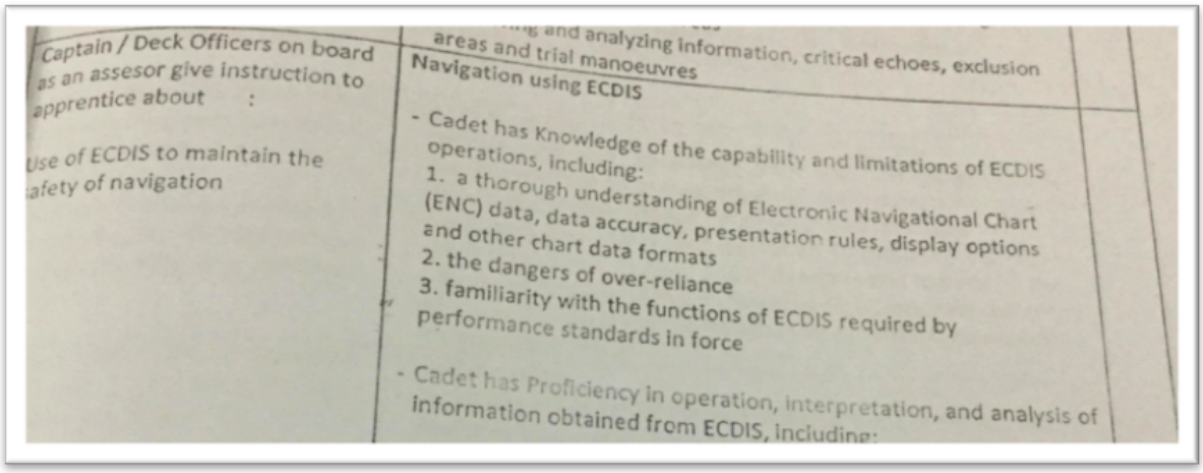
Finnish interpretation:

What I find surprising in the answers are the comments about lacking theoretical knowledge. I expected comments about lacking practical skills, something which is normal since the cadets are onboard for the first time, but I did not expect comments such as: "*They do not show enough initiatives and logical thinking."* and "*I'm sure they're trying their best, but due to their limited theoretical knowledge and English (for most of them) it's not easy to explain them something: we should first remind the basics (and have it translated sometimes) and then only we can explain in more detail*." and "*The theory given at the time on campus is not enough to be implemented on ship. Their performance should be improved."* These comments I think are worrying from the cadets' point of view. Practical skills they can train, but theoretical knowledge is

more difficult to achieve onboard. There are also several comments saying that the cadets should read manuals and study: "*More knowledge and self-education is really appreciable.*"

This can also be related to the level of English - it is not easy to read and understand manuals if your level of English is not high enough. The level of English skills is also commented fairly often. This too is something that the cadets, and the academy, should pay attention to. Some comments related to the Training Record Book (TRB) can probably also be related to the language problem. The TRB is written in English and some of the tasks in it would seem to ask for a really good command of English in order for someone to be able to complete them (Figure 4).

fig. 4. Excerpt from STIP Training Record Book



Indonesian interpretation:

I am concerned about the less objective assessment because of poor personal relationship with the Master/Chief Engineer, or because the cadets are still trying to adapt themselves with the situation on board. They try to get to know the people on board and also try to memorise the theoretical knowledge they get at school. Another worrying thing is the difficulties of the cadets in articulating answers or their ideas, and also if their knowledge of theory and practice is less up to date.

Question number 6: Is something in the assessments rude or offending? Why?

Finnish interpretation:

I find no comments rude or offending. The only comment that is getting close to being offensive in my opinion is the statement that the cadets would not show enough logical thinking. The statement seems neutral, stating an experienced observation, but it somehow gives me the impression that the commenter takes a slightly ascendant attitude (c.f. discussion on power above – what is "logical thinking", is logic not culturally dependent?).

Indonesian interpretation:

Sometimes the comments of the officers about the cadets' performance are a bit rude for Indonesians; mostly Indonesians do not comment on someone's competence strictly to the point. Though of course we can accept his comment as critique, but it may sound very harsh sometimes.

Results and Discussion

In ethnographies results are more up to the interpretations of the researchers or readers. No definite truths are delivered but rather issues to be discussed and understood are raised. We believe the main findings in this paper are:

1. The representative of the manning company gave a distorted picture about the STIP cadets – his opinions were a lot more negative than what we received from the vessels
2. Persons in power, e.g. employer's representatives, are believed to have the correct information simply due to their position
3. There were discrepancies between the feedback given by the manning company and the ships
4. Some problems the cadets face on board seem to be a result of lacking English and/or communication skills
5. There are slight differences between the Finnish and the Indonesian interpretations about the feedback.

The material is maybe a bit too small to draw conclusions on the differences in the interpretations of the feedback. Some general remarks can be given though. It appears as if the Indonesian interpretation is a bit more focused on the relationships between the cadets and the officers. The Indonesian interpretation also is a bit more negative. In question 3 for example, the Indonesian

comment is: "*Yes, I think the officers have seen the cadets make mistakes repeatedly.* " while the Finnish interpretation begins with a "*I do not read any mistakes in the comments.* ". It would be interesting to discuss this in further detail, but for that we do not have space here. One guess to further study could be related another difference between the interpretations, i.e. in question number. The Indonesian interpretation sees some rudeness in the answers since the comments are so straight to the point, while the Finnish interpretation does not find anything rude in the answers. Maybe an Indonesian interpretation looks more "between the lines", resulting in a harsher interpretation? If negative direct criticism is looked upon as "not direct", then even worse interpretations are made. And if neutral criticism is likewise looked upon as a slightly "kinder" version of the 'truth', then neutral criticism to an Indonesian reader will appear more negative than for a reader who reads it "as it is".

Finally a few words for MET institutions and International employers:

Indonesian MET institutions should think about :

1. Speaking comprehension: give more attention to the practical skills, such as speaking and reading/writing
2. Cultural studies should probably be taught after the cadets' on board training, is they will be broader minded and know how to communicate with people from other countries effectively

International employers should think about:

1. The psychological situation of cadets. Sometimes cadets are afraid of making any mistakes and just keep quiet, they do not to take any initiative and sometimes they do not show any critical thinking
2. A study/learning contract between officers/ the captain and the cadet could help the cadets. That way the cadets have their schedule on board, the cadets are being involved in the agreed task, are more responsible with the "small agreement" between him and the Captain. That way the cadets will take more initiatives in doing tasks on board.

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Advantages or Disadvantages? Foreign–Born Professors Teaching at Maritime Institutions and Private Colleges in USA

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Abstract

As the world has become increasingly integrated, more and more foreign-born scholars receive faculty jobs at universities and colleges in the USA. These foreign-born professors have been through intensive western training, including doctoral programs in their respective fields, as well as receiving recognition and acclamation for their international vision, work ethic and solid knowledge. However, as professors from abroad, they have invariably pronounced disadvantages that largely stem from cultural differences and the accents of those for whom English is a second language.

The paper presents an empirical analysis of the advantages and disadvantages facing foreign-born professors teaching at maritime institutes and private colleges in the USA. Applying a case study methodology and drawing on school-wide questionnaires from students, peer faculties, and administrators of both Curry College and Massachusetts Maritime Academy, the paper examines the scope and scale of differences of foreign-born or domestic-born professors measured by teaching effectiveness and learning outcomes. The paper also looks into actions that would heighten the advantages and mitigate the disadvantages of foreign-born professors if such issues arise.

The findings indicate that it is generally agreed that there is not a notable difference between foreign-born or domestic-born professors per se, but rather it is personal teaching styles, academic approaches and genuine enthusiasm about subject matter that are the key elements affecting evaluations. Respondents believed that foreign-born professors brought with them international perspective which inspired students to think about questions in unprecedented and innovative ways. Some cadets suggested specific courses like Chinese Economy or Japanese Law

Systems being given to professors who came from the countries of the origin, while assigning more general courses like Chemistry to domestic-born professors. By doing so, they claimed, professors would be teaching to their strengths and offering unique educational perspectives.

keywords*: cross-cultural education, foreign-born professors in American colleges*

Introduction

As the world becomes increasingly interconnected, a growing number of foreign-born scholars receive faculty positions at universities and colleges in the United States, including American maritime institutions and private colleges. In 2001, according to the Commission on Professionals in Science and Technology, 38.0% of engineering faculty members in U.S. institutions of higher education were foreign-born, as were 35% of medical scientists, and 29.2% of mathematical science faculty (Lowell, Babco, & Ellis, 2010). In 2003, it was estimated that foreign-born scholars earned 40 percent of U.S. doctoral degrees in science and engineering. These foreign-born professors have been through intensive western training which include doctoral programs, as well as receiving recognition and acclamation for their international vision, work ethic and solid knowledge. However, as professors from abroad, they have invariably pronounced disadvantages that largely stem from cultural differences and the accents of those for whom English is a second language.

The paper presents an empirical analysis of the advantages and disadvantages facing foreign-born professors teaching at maritime institutes and private colleges in the USA. Applying a case study methodology and drawing on school-wide questionnaires from students, peer faculties, and administrators of Curry College and Massachusetts Maritime Academy (MMA), the paper examines the scope and scale of differences of foreign-born or domestic-born professors in regards to teaching effectiveness and learning outcomes. The paper also looks into methodology that would heighten the advantages and the mitigate disadvantages of foreign-born professors if issues were to arise.

The paper is structured as follows: Section II identifies advantages and disadvantages foreign-born professors might face. Section III presents possible resolutions to tackle the problems and ways to enhance the advantages. Section IV offers a conclusion.

Advantages and disadvantages of foreign-born professors

It has become a recent development that increasing numbers of foreign-born professors find work at American universities and colleges. At Massachusetts Maritime Academy (MMA), there are 13 foreign-born professors out of 82 full time faculty, which accounts for about 16% of the all faculty members at the school. At Curry College, there are 17 foreign-born professors out of 202 full time faculty, which accounts for 8.5% of all the faculty members at the institution. Two questionnaires were conducted the spring and fall semesters of 2015 at MMA with 33 cadets and 53 cadets participated respectively. And one questionnaire was done in the spring term of 2016 at Curry College with 35 joining in the survey. The purpose of the questionnaires were to investigate how often a typical student takes classes taught by foreign professors each semester, the advantages and disadvantages of foreign professors perceived from the students' point of view, and any different impacts foreign professors would impose on their education in comparison to what American professors might have done.

The questions and answers to the surveys conducted at both Curry and MMA are presented in the following tables.

table 1: Answers to the question: how many classes are taught by foreign professors this semester at MMA (Spring and Fall term of 2015) and Curry (Spring term of 2016)

Classes taught by foreign-born professors	1out of 8	1out of 6	1out of 5	1out of 4	2out of 7	2out of 6	2out of 5	3out of 6	2out of 3
Number of cadets, Spring term, 2015 (MMA)	0	5	11	1	2	9	2	2	1
Percentage of 33 surveyed cadets (MMA)	0%	15%	33%	3%	6%	27%	6%	6%	3%
Number of cadets, Fall term, 2015 (MMA)	4	18	14	1	1	5	6	4	0
Percentage of 53 surveyed cadets (MMA)	8%	34%	26%	2%	2%	9%	11%	8%	0%
Number of Students, Spring, 2016 (Curry)	1	4	9	1	2	5	7	2	4
Percentage of 35 surveyed (Curry)	3%	11%	26%	3%	6%	14%	20%	6%	11%

Table 1 shows clearly that for students at both Curry and MMA, it ranges one out of eight to two out of three classes being taught by foreign-born professors for the semester the survey was conducted. Table 2 supports a similar ratio of foreign-born professors for all the semesters that the students have spent at the two institutions.

table 2: Answers to the questions: What is the average number of classes being taught by foreign professors for all the semesters at MMA and Curry
(spring and fall terms of 2015 at MMA, spring term 2016 at Curry)

Classes taught by foreign-born professors for all semesters	1out of 12	2out of 15	1out of 6	1out of 5	1out of 4	2out of 7	1out of 3	2out of 5	2out of 7	3out of 5
# of cadets in Spring term 2015	1	1	7	12	1	2	5	2	1	1
% of 33 surveyed, Spring, 2015	3%	3%	21%	36%	3%	6%	125	6%	3%	3%
# of cadets in Fall term 2015	1	2	17	14	4	2	3	4	6	0
% of 53 surveyed cadets, Fall, 2015	2%	4%	32%	26%	8%	4%	6%	8%	11%	0%
# of students in Spring 2016, Curry	0	1	2	3	6	1	0	4	3	2
% of 22 surveyed, spring, 2016	0%	4.5%	9%	14%	27%	4.5%	0%	18%	14%	9%

Advantages of foreign-born professors

It is generally agreed that their work ethic, international vision and productivity are common attributes of foreign-born professors. According to a study published in the Journal of Higher Education in November of 2011, foreign-born faculty members in the USA are more productive than their American born peers; they produced one peer-reviewed paper a year, compared to their American-born colleagues that produced an average of 0.60 articles annually. Two hypotheses stand as follows: firstly, foreign-born professors must be exceptional students in order to

be accepted by American schools for graduate studies. Following graduate school, the most promising are invited to stay as faculty afterwards. Secondly, foreign–born professors adopt the resolute mindset of immigrants in a new country. They are more motivated and more enthusiastic to face challenges and prove their capability. As a result, they tend to work harder and longer than their American-born counterparts.

The advantages of foreign-born professors, as reported in the surveys taken at Curry College and MMA, are placed in the following categories shown in Table 3.

table 3. Answers to the question: Advantages of foreign-born Professors (May, Sep. 2015 at MMA and March 2016 at Curry)

Categories of answers	Answers
Qualification	knowledgeable, strong educational background, very qualified,
Different perspectives	good for students to expand their minds, increase knowledge on different things, push students to perform better in classes
Teaching approaches	Take students more seriously, move slower over topics, more passionate about the subject matter. make class more interesting, Expect students to study more, classes tend to be more challenging
Global vision	Different perspective on global issues
Bring different culture to class	Let students experience cultural diversity, and obtain better understanding of multicultural background

The students are highly aware of the qualifications and training foreign-born professors gained, and all agree that the biggest advantage of foreign-born professors are the unique angles they bring to the issues at hand. One student wrote, “Some foreign-born professors bring a different set of skills and knowledge that we are not used to seeing. If they match the class, they are good”. Another student said that “foreign born professors can help give another look at what is being taught.” One student even put that “they are very qualified and set higher standard”. In the words of the President of MMA, Admiral Gurnon, “foreign-born professors are valuable assets of our faculty body. They are very well trained, very knowledgeable, extremely dedicated, and helping tremendously our cadets expand their international visions and global perspectives.”

Disadvantages of foreign-born professors

Disadvantages of foreign-born professors could also be identified. They include the obvious such as thick accents and cultural barriers, and the less openly admitted issues of racial tension and ethnic discomfort. According to the paper by Lee in 2004, foreign born professors are more productive and yet they reported lower levels of job satisfaction. Table 4 sums up the disadvantages Curry and MMA surveyed students would see.

table 4. Answers to the question: disadvantages of Foreign –born Professors (May and Sep. 2015at MMA and Mar. 2016 at Curry)

Categories of answers	Answers
Command of English	Sometimes difficult to understand, speak with strong accents, occasionally hard to follow due to structure of statements
Cultural barrier	Have trouble relating to students culturally, not being acquainted with the society that much,
Teaching Method	Not understand the way they explain concepts, have trouble sometimes to engage in discussion and communication

The students still focus very much on the "foreign" aspects of the professors and the inconveniences, even misunderstandings as a result of this fact. However, the students also noticed that "usually after two weeks of having the (foreign –born) professor, one understands/gets used to what the professor is saying," as one Curry college student wrote down in the survey.

Table 5 gives the answers to the question, "Do you prefer American professors to foreign professors?" About three quarters of the students reported not having any preferences between American and foreign-born professors. As one student put it, "it boils down to the quality of the teachers, not where they are from. There are good teachers from US, and there are good teachers from other countries." Another student said that they prefer to have American professors, as they might understand material better for "more career based courses like engineering classes, which will be preparation for Coast Guard License Examination."

table 5: Do you prefer American professors to foreign-born professors

Answers	Prefer American Prof.	Prefer Foreign Prof.	No Preferences	Time and Institution of Surveys
Number of students	6	3	24	May 2015 (MMA)
Percentage	18%	9%	73%	May 2015 (MMA)
Number of students	13	2	38	Sep.2015 (MMA)
percentage	25%	4%	71%	Sep. 2015 (MMA)
Number of Students	2	5	26	Mar. 2016 (Curry)
percentage	6%	15%	79%	Mar. 2016 (Curry)

The students prefer American born professors mainly because "it is easier to understand them in lectures". However, one student wrote that they "prefer foreign-born professors as they can always relate better to low-income students vs American professors, and they take students more seriously than American professors".

table 6 : Does foreign professors impose different impacts on your study outcomes

Answers	No differences	Different impacts	Time & Institute of Surveys
# of cadets out of 33 at MMA	30	3	May 2015
Percentage	91%	9%	May 2015
# of cadets out of 53 at MMA	44	9	Sep. 2015
Percentage	83%	17%	Sep. 2015
# of students out of 35 at Curry	27	6	Mar. 2016
Percentage at Curry	82%	18%	Mar. 2016

Each time, more than 80% of the questionnaire participating students at Curry and MMA believe that there is no difference in their study outcome if the class is taught by an American professor or a foreign professor. Less than 20% of the students assume that there are some differ-

ences in their study outcomes. All of the 6 students, whose answers to the question fell into the "different impacts", put down positive commends of the impacts foreign-born professors would bring on their study outcomes. One said, "my grades are higher and I always know the course materials." Another student put, "foreign –born professors usually encourage you to study more. They have a way of motivating students." A couple of students think that they might put in more efforts, because, as one student put it, they "would study more and work harder as foreign-born professors set higher standards and expect you to accomplish more for the class". Another student wrote, "It makes my study outcome a bit better from hearing how they do things. It is good to learn the different approaches." And yet some MMA cadets saw the issues differently. One MMA student said that he/she had to study more and longer as he/she sometimes could not understand foreign-born professors well in the classes.

The surveys conducted at two institutions show pretty much the same results for nearly all of the questions, though Curry is a private College with 1,800 students and MMA a specialized institute with 1,500 cadets. The results certainly reaffirm the conclusion drawn from the analysis, that is, from the students' perspective, there is not much of a difference between foreign-born and American-born professors in terms of study outcomes, teaching effectiveness and classroom approaches.

Measures to Enhance Advantages and Mitigate Disadvantages

As foreign-born professors have certain advantages and disadvantages in fulfilling their teaching responsibilities, it is important to search for measures which could help increase the advantage and overcome the difficulties. Several approaches are proposed and examined in this section to utilize the advantages and make up the disadvantages of foreign-born professors.

More Specific Courses at undergraduate level

Most of the surveyed students admit that foreign-born professors are particularly skilled if they teach the classes related to their countries and cultural background. One student said that they found the foreign teachers are interesting to learn from when the classes can relate to their original country. Another student agreed that foreign-born professors are "better for specific

courses relating to their background/ethnicity, because they add experience and flavor from their personal experience".

In regards to teaching a country specific class by foreign-born professors, a case study is offered here. The course called Chinese Economy was offered in the spring term of 2014 at MMA. On the first day of the class, one questionnaire was conducted just to see how much the students, mostly seniors and a few juniors, knew about the country. On the last day of class, another questionnaire was done to see how much they learned and how they felt having a foreign-born professor teach the course in which their personal experiences were utilized. The following two tables sum up the answers from 20 participating cadets.

table 7. Answers to the question: list five things you know about China (March 2014)

Categories of answers	Answers
Politics	communist government, internet control
Economy	fast economic growth, high ranking in merchant fleet, big trading partner of US, big shipping industry,
Society	long history, rich culture, lots of ethnic minorities, good food, most populated country, 2008 Olympics, small families
Geography	capital is Beijing, the Great Wall,
People	Confucius, Mao Ze Dong

The answers to the question "Please list five things you know about China" can be put into five categories, politics, economy, society, geography and people as shown in Table 7. It tells that MMA cadets had some general information about China, such as political structure, rapid economic growth, maritime industry in China, culturally rich society and good food, not much in of details.

All of the students agreed that the class had met their expectations---to learn more about China and its economic growth. The great majority of the students are welcome to the idea of having a China-born professor teach the course, as she could "add her personal experience and insights".

table 8. Answers to the questionnaires (June 2014)

Questions:	positive	negative	Neutral
Has the class met your initial expectation?	100%	0%	0%
Prefer to have a China-born professor for the class?	70%	10%	20%

Another student said that they could get "much more in depth with specific courses from foreign teachers, often times, they (foreign-born professors) are better than domestic professors". Some other students disagreed with the idea; they were of the opinion that American professors might have interesting point of view looking objectively at the Chinese economy from outside.

More things to learn by living across culture

Foreign-born professors can gain English proficiency and cultural adaption simply by living immersed in American culture and holding faculty jobs. Gary Ferraro explained that it is crucial to understand the cultural differences, value norms and language styles, even some non-verbal communications skills like body posture, hand gestures and facial expression between negotiating parties, because "when entering international negotiation, there are no longer shared values, interests, morals, behaviors and linguistic styles, all of which can greatly affect the process and outcome of the negotiation". The proposal of cultural submersion is applicable to American higher education where foreign-born professors will face American-born students. In order to be effective, it is important for foreign-born professors to pay particular attention to the new environment, cultural norms, history, and traditions of their adopted land.

In addition to learning outside the classroom, foreign-born professors could also try educational diversity to enhance teaching effectiveness. Tools including handouts, chapter summaries, etc. offer a visual medium so that students can receive the pertinent information in another form.

Conclusion

Looking at data, it is clear that foreign-born professors contribute greatly to American higher education. Hard-working and productive, they bring unique international perspectives to their

classrooms and American students. However, foreign-born professors also have some inherent disadvantages which may negatively impact the effective learning of their students, such as speaking accented English, cultural barriers, and possible deviation in thoughts and behaviors from American norms. As long as the foreign-born professors focus on and enhance their numerous advantages and work to overcome the cultural and language barriers, they are highly appreciated and make unmeasurably tremendous contributions to American higher education.

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Developing Cross-Curricular Teaching by "Marinisation" of ME Teachers

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Abstract

Many of the important concepts, strategies, and skills taught in the English language are "portable"[1] (Perkins, 1986). They transfer readily to other content areas. Interdisciplinary/cross-curricular teaching supports and promotes this transfer. While students are learning the basic information in core subject areas, they are not learning to apply their knowledge effectively in thinking and reasoning[2] (Applebee, Langer, & Mullis, 1989). Strategies for monitoring comprehension can be directed to reading material in any content area. Cause-and-effect relationships exist in interdisciplinary studies. Interdisciplinary/cross-curricular teaching provides a meaningful way in which students can use knowledge learned in one context as a knowledge base in other contexts in and out of school[3] (Collins, Brown, & Newman, 1989). Cross-functional skills give rise to a debate among teaching specialists: "do cross-functional skills exist in themselves, can they be identified and established, can a frame of reference be drawn up as in the case of an occupation or is it a general potential that can be expressed in different circumstances?"[4] (Parcon, 2006)

This paper explores ME interdisciplinary/cross-curricular teaching to provide the conditions under which effective learning occurs. Students learn more when they use the ME skills to ex-

1 Perkins, D..N., Knowledge as Design, (1986), Lawrence Erlbaum Associates Inc. Publishers, New Jersey, ISBN-13: 978-0898598636

2 Applebee, Langer, & Mullis, (1989), *Crossroads in American education: A summary of findings: Educational Testing Service.* Princeton, NJ.

3 Collins, Brown, & Newman (1989). Cognitive apprenticeship: Teaching the crafts of reading, writing, and mathematics. In L. Resnick (Ed.), Knowledge, learning and instruction: Essays in honor of Robert Glaser (453-494). Hillsdale, NJ: Erlbaum.

4 Parcon, P. (2006) Develop Your Team Building Skills, Lotus Press, Jan 1, 2006

plore what they are learning, write about what they are learning, and interact with their classmates, teachers, and members of the maritime industry.

keywords*: cross-curricular teaching, interdisciplinary Maritime English skills, synergistic teaching and learning*

Introduction

Most definitions of **cross-curricular** work – also known as **curriculum integration** – emphasize how combinations of subjects are used within project or thematic work, incorporating a wide range of sources, related concepts and flexible schedules. A **cross-curricular approach** is referred to as "**interdisciplinary**" because it incorporates more than a single subject area; the subject disciplines may be related through a central theme, issue, problem, process, topic or experience[5] (cf. Jacobs, 1989). It is therefore closely associated with thematic teaching and synergistic teaching (synergy means 'combined interaction'). Arguments in favour of an integrated curriculum have their basis in the work of theorists who advocate a constructivist view of learning; that is, students finding out by direct experience – often jointly with other students – rather than by being told.

The teachers' view is that a cross-curricular approach has provided a creative way of linking subjects through a common theme to give students a meaningful, practical and holistic context to learning that is very motivating. Students are enabled to use similar skills in different subjects with the same context or problem. They are helped to see that events do not happen in isolation, thus showing the relevance of science ideas and skills in a wider context. When successful, students find learning easier because it is less disjointed and is relevant. As one context is used, language demands are related. This is particularly important in a multilingual work-class where there are many foreign students and many languages are spoken. The teachers have appreciated the opportunity to be more creative themselves and the opportunities to be versatile.

While there are potentially great advantages in cross-curricular work, teachers are still struggling to decide on a planning approach. If all subjects are linked to a theme such as "*movements of the vessel*" or "*ship hydromecanics*, some subjects will not always fit logically within the

5 Jacobs, H.H. (1989). The growing need for interdisciplinary curriculum content. In H.H. Jacobs (Ed.), Interdisciplinary curriculum: Design and implementation (1-11). Alexandria, VA: ASCD.

theme, with the possible result that the skills and concepts of these subjects are inadequately addressed.

Therefore, should one subject be dominant and others linked if, and only if, appropriate? If so, which one? How can a lack of balance be avoided? Ensuring progression and continuity of skills and knowledge is a major challenge. Even when teachers have identified a possible approach, many found that the current organizational practice of setting and timetabling make a whole-school cross-curricular approach difficult[6] (cf. Ofsted, 2006)

On the theoretical level of this analyse, Fogarty[7] (1995) describes 10 levels of curricular integration or cross-curricular work:

1. Fragmented: separate and distinct disciplines.
2. Connected: topics within a discipline are connected.
3. Nested: social, thinking and content skills are targeted within a subject area.
4. Sequenced: similar ideas are taught in concert, although subjects are separate.
5. Shared: team planning and/or teaching that involves two disciplines focuses on shared concepts, skills or attitudes.
6. Webbed: thematic teaching using a theme as a base for instruction in many disciplines.
7. Threaded: thinking skills, social skills, multiple intelligences and study skills are threaded throughout the disciplines.
8. Integrated: priorities that overlap multiple disciplines are examined for common skills, concepts and attitudes.
9. Immersed: learner integrates by viewing all learning through the perspective of one area of interest.
10. Networked: learner directs the integration process through selection of a network of experts and resources.

For the maritime domain, there is the great debate: *Which one is appropriate for the maritime educational field?*

6 Ofsted (2006) The logical chain: continuing professional development in effective schools. HMI 2639. London: Office for Standards in Education

7 Fogarty, R. (1991). How to integrate the curricula: The mindful school. Palatine, IL: Skylight Publishing, Inc.

Fogarty's schema alerts us to the fact that adopting a cross-curricular approach requires close scrutiny because the concept can be allocated a variety of legitimate meanings. As it does not have a single identity, it cannot be assumed that there is a consensus among educators over its definition, its implications for curriculum planning or its significance for teaching and learning. Setting aside concerns over definition, advocates of cross-curricular work agree that it is a means of establishing links across the humanities (history, geography, language, literature); or between the natural sciences and mathematics.

The team of Constanta Maritime University, Romania, in addressing 'cross-curricular learning', confidently asserts that this approach offers a creative way to develop student's knowledge, skills and understanding, while motivating them to learn through stimulating, interconnected topics. Thus, crossing subject boundaries allows for investigations that engage student's imagination and encourages students to undertake active enquiry, to show initiative and to discuss and debate issues. The integration of knowledge process emphasises a fusion of ideas and concepts within and across subject areas and broader life experiences in an attempt to make education more relevant and meaningful for students. It is seen as a way to support the transfer of learning and skills from one situation to another, teach students to think and reason, and provide a more relevant curriculum to engage their interest. But to be successful with that, it is very important to forget about: *"I am your teacher of Maritime English! We have our lessons about activities described by using the Maritime Technical English terminology. I give you the definition and translation of them. Don't ask me particular explanations about e.g. the ship's movements. These are topics of* ***Ship's Handling*** *discipline!"* Yes, that's right, but you, the teacher of Maritime English should be prepared to help the student understand: use videos, or even a gesture to help his/her imagination in the very moment they have heard the new word. I agree with the fact that we are not "multi-purposes" teachers, but we need a little knowledge concentration about what we are teaching! [...] At our last memorable IMEC 25 in Istanbul we discussed *marinisation* of the Maritime English Teacher. That is the way!"[8] (cf. C.C-Ungureanu, IMEC26, 2014).

Curriculum that is truly interdisciplinary reflects the emerging consensus definition of interdisciplinarity and addresses the core elements of interdisciplinarity. These elements include (1) addressing a complex problem or focus question that cannot be resolved by using a single dis-

8 Chirea-Ungureanu, Carmen, (2014) Why do some people say the English Language is hard to learn, and Maritime English is hard to master?, in Proceedings of IMEC 26, 7-10 July 2014, Terchelling, The Netherlands.

ciplinary approach, (2) drawing on insights generated by disciplines, interdisciplines, or schools of thought, including non-disciplinary knowledge formations, (3) integrating insights, and (4) producing an interdisciplinary understanding of the problem or question[9]. (cf. Repko Allen, 2008)

Advocates argue that by teaching the curriculum as an integrated whole, students view of learning is likely to be more holistic ("rounded"), whereas if teachers emphasise the separation and discreteness of subjects it can establish artificial barriers in the minds of students and they may fail to make secure connections between knowledge components. Thus, the knowledge and skills that students learn and apply in one area are used to reinforce and expand their learning in other areas, thereby dissolving subject barriers and combining relevant parts of each subject into a composite whole.

How might interdisciplinary learning affect us, as teachers, our colleagues, and our students?

Interdisciplinary learning has proven to have a positive impact on teaching styles and on relationships with both colleagues and students. Let's discuss a few of these potential benefits.

A curriculum with an interdisciplinary element into encourages people involved to develop meaningful links among the fields in ways that intrigue and motivate both teacher and students. Interdisciplinary, often described as "the teaching of thinking," gives a purpose to study that goes far beyond the evaluation and memorization of information related to a particular topic. It is a design element, it can push us and our students toward more powerful thinking and the ability to make comparisons that bridge disciplines, and encourage the application of knowledge.

When we are engaging in this kind of thinking, it can also have a positive effect on us. Many teachers feel 'alive' when using a fresh approach to old content. More than that, we can find the way to realize that we have been teaching facts for the sake of knowing facts, and, very important, we must go back and redevelop our own way of thinking and revise our lessons.

9 Reptko, Allen (2008), Interdisciplinary Research: Process and Theory, Kindle Edition

The facts described above can affect our interaction with colleagues as well. When teams of teachers must work together to develop effective units, they often feel a sense of collegiality and enthusiasm that would not be achieved if they were working in isolation. At Constanta Maritime University we are working in a team of teachers to develop interdisciplinary units. I think I am not wrong when saying that we become more creative, enthusiastic and collegial as a result of working together; and the most important feature of our collaboration, we have developed personal and professional addiction in our teaching. Integrating interdisciplinary units throughout a curriculum can not only help teams of teachers view the disciplines as an interdependent whole but also foster collegiality, leading to a deeper appreciation of our profession in general.

The relationship between Marine Engineering and Nautical Science and Maritime English is complimentary. It allows teachers to attain students learning and development within the limited time frame. Also it allows a creative approach for students to engage in. Maritime English and Marine Engineering and Nautical Science can have a complimentary relationship as long as the lessons are carefully planned and structured to present opportunities to developing speaking and literacy skills whilst providing a real-life context for learning.

The national curriculum for English reflects the importance of spoken language in students' development across the whole curriculum – cognitively, socially and linguistically. Spoken language underpins the development of reading and writing. The quality and variety of language that students hear and speak are vital for developing their vocabulary and grammar and their understanding for reading and writing. Teachers should therefore ensure the continual development of students' confidence and competence in spoken language and listening skills. Students should develop a capacity to explain their understanding of books and other reading, and to prepare their ideas before they write. They must be assisted in making their thinking clear to themselves as well as to others and teachers should ensure that students build secure foundations by using discussion to probe and remedy their misconceptions. Students should also be taught to understand and use the conventions for discussion and debate.

We cannot ignore that the concept of MELF (Maritime English as a Lingua Franca) at SEA with all its associated demands, has now been subtly and almost imperceptibly incorporated in the syllabi, methodologies, and teaching goals of marine higher education institutions. This concept emphasises the use of Maritime English as a contact language between people who are from different linguistic, cultural, and social background and may not necessarily share English

as a first language. MELF at SEA aims to prepare students to use English as a medium to communicate in their professional interpersonal communication, which may often be cross-cultural. In this context, the primary task of a ME teacher is to train students for general linguistic awareness, basic grammar, and communicative strategies. The emphasis is on immediacy and clarity of communication, instead of on control over the nuances that are typical of native speakers. This change has emerged in response to today's multilingual work-environment scenario, in which people change bases quickly and can suddenly move from one culture to another on a short-term basis. It is thought that once the students possess basic communication skills, they can learn the necessary local nuances— aspirated sounds, the "dark L", the suppression of R, for example, by experience. The main concern of MELF at SEA, and by transference of ME teachers is international intelligibility, which includes language as well as communication. The communication part needs interdisciplinary skills.

In order to teach ME communication skills, the traditional ME methods are not enough. They have to be supplemented with a different knowledge base and have to borrow heavily from nautical sciences and marine engineering. When marinisation of teachers is complete, then effective communication on board vessel is the key to successful operations!

Certain changes in the teaching methodology are also suggested at this stage. An ideal teaching environment should expose learners to a variety of ways in which Maritime English can be used. Simulation of different circumstances can be easily projected with the help of multimedia techniques, imaginatively using the language laboratory and introducing group activities. Group activities should not be limited to holding group discussions or debates. The ME teacher should organize role-plays keeping in mind the linguistic capabilities of the learner group. Suitable case studies should also be taken up which could promote better learner participation. These exercises should be done in small groups, the activities of which should be very closely linked with the lecture groups so as to avoid unnecessary repetition.

Each of these activities should be simultaneously done at three levels. First, the participants should evaluate themselves. This should be followed by a peer evaluation. The ME teacher, who should also review previous evaluations, does the final analysis. A ME teacher should also have adequate computer knowledge, and should freely use computers for audio-video recording and screening. Such activities promote fluency, impart confidence to the learner in effectively using Maritime English to communicate to an audience in interpersonal situations, and also foster learner engagement to distinguish between surface and deep learning. Special workshop ses-

sions should also be held for weaker students, wherein they can be counselled on overcoming psychological barriers. In all these activities, the ME teacher must display a willingness to do more than the assigned task. A motivated ME teacher can easily transform the life of a student by affecting his/her career performance.

Using an interdisciplinary unit in our teaching can also positively influence our students. Many teachers agree that interdisciplinary units further the development of higher-order thinking skills. When curriculum has an interdisciplinary format is one means of helping our students realize the behavioural and performance objectives that we set. At this expert level of integration, we will bridge the disciplines while simultaneously creating a thoroughfare between our students' needs and the content, allowing each to inform the other as the unit moves toward completion. Students engaged in interdisciplinary learning often find the content more exciting and relevant.

What do interdisciplinary units look like? Why isn't interdisciplinary learning more commonly used?

To find an interdisciplinary unit, experts often begin by assessing the student's knowledge development that the unit will serve. Next, they identify the discipline fields that will be involved. Then, they propose draft titles and develop a concept wheel, a visual tool that helps to determine the unit's organizing centre and essential questions.

Actually, in high school, education focuses on skill development, such as the language four skills: listening, speaking, reading, writing; or the basic fundamental sciences, and thinking skills applied to content. Once students leave high school, the focus has traditionally shifted from the teaching of skills to the coverage of content. This is still the norm in many schools in Romania despite dissemination of research that says we should integrate curriculum content with the teaching of skills and thinking processes. There has also been polarity between those who promote interdisciplinary learning and those who fear that it will replace discipline-based learning, and for a long time this limited interdisciplinary approaches in higher education institutions.

How do we find connections between the disciplines that really work?

To agree with a forced connection, that is a contradiction in terms and also a weak design. A connection based on a mundane organizing centre or theme can be an interesting moment for students, but we don't necessarily get any building from it.

Over the examples of interdisciplinary curriculum design, what we have seen have been co-ordinated units in *parallel disciplines* - for example, two teachers teaching separate units on *ME/Movements of ship* and *Ship's Handling* or *Ships Hydromechanics* might decide to give these units at the same time in the academic year. Parallel design allows students to learn about a topic from the perspectives of multiple discipline fields at the same time but does not use organizing centres and essential questions to make those disciplines work together in a truly interdisciplinary manner.

A well-designed interdisciplinary unit uses organizing centres and essential questions as a conceptual lens that validates each discipline base as having depth and integrity all its own, while at the same time revealing connections among the disciplines. Finding these connections encourages students to think at a higher cognitive level.

What exactly is an "essential question"?

When students learn from a curriculum shaped by essential questions, they will be more likely to truly interact with the content. Instead of answering, "Stuff..bla-bla-bla." when asked what they learned, students will retain higher levels of knowledge. Essential questions have to be thought like mental Velcro; they give students a "sticky" place to which their thoughts adhere. Essential questions in an interdisciplinary unit are like chapter headings in a book; each one is a focus of inquiry. They also give students a sense of ownership of their curriculum from knowing what questions are directing their learning and why.

e.g: *Why motions of ship have adverse effects on human performance relative to vessel design?*

Essential questions are a creative choice, but they are also a pragmatic conceptual commitment that frames what we will teach and what we will leave out.

The best units are guided by essential questions that transfer easily among multiple disciplines, so that students can ask the same question repeated times from different perspectives to enrich their understanding of the unit's organizing centre.

Format	Example of an Organizing Centre
Topic	Movements of ship
Issue	Waves
Theme	*Motion sickness* with the *Movements of ship* as examples
Work	Task Performance decrements
Problem	What can we do to moderate the influence of movements of ship on crew performance ?

Brainstorming tends to work best either individually or in small groups, with a time limit. A good way to brainstorm about a new unit is to integrate the brainstorming/concept wheel process at all levels of the people involved in it: ourself, the planning team, and our students.

So, essential questions should:

- frame the organizing centre
- promote higher order thinking
- be complex enough to be broken down into smaller questions
- help link concepts and principles across disciplines
- correspond to the appropriate time frame
- require materials that are readily available
- be anchored in the lives of learners
- relate to real-world problems
- be meaningful
- be interesting to learners

Essential questions are a means to structure a unit, but they can also be a means to teach our students how to formulate questions1[10]. (Information for this section on essential questions comes from Krajcik, Joe., and H. Lynn Erickson, 1998).

How teachers can asess students in an interdisciplinary unit?

This is a common concern of interdisciplinary teams. It is easy to become confused about who should grade what. Often, what happens is that a student will produce a project or theme-work, and the team assigns the writing and grammar grade to the ME teacher, while the grade for content and analysis is given by whoever's teaching the other discipline represented in the project or theme-work. This kind of grading by default can send a bad message to students: "*You don't have to have good grammar and writing skills in science; those only matter in language arts, and your science grade rests on the content and analysis"*[11] *(*cf. (Heidi Hayes Jacobs, 1996). If we are teaching an interdisciplinary unit, the last thing we want to do is segregate the disciplines all over again by how we grade!

In considering assessments for our unit, process is just as important as product. We can evaluate a student's product, but we can also evaluate their skills while analysing their work styles. Assessing group work is especially important. In our assessments, we may want to include a "process" or "ability to cooperate and work in groups" grade. Keep in mind that we can also have our students assess each other and themselves as part of the overall assessment plan for the unit. Assessments can take all forms, on a continuum from standardized testing to authentic assessments. Assessing students should be imagined as making a videotape, not a snapshot -- an ongoing, multilevel, and lively process that goes on continuously through a student's entire education[12] (cf Heidi Hayes Jacobs, 1996). There are processes and skills that assist students in **consuming** information and help them acquire knowledge. The corresponding assessments

10 Krajcik, Joe. Characteristics of Driving Questions. [Online] URL http://www-personal.umich.edu/~krajcik/DQ.html, and H. Lynn Erickson, Concept-based Curiculum and Instruction, Thousand Oaks, Calif.: Corwin Press, 1998.

11 Heidi Hayes Jacobs, (1996), Breaking Ranks: Changing an American Institution, Reston, Va.: National Association of Secondary School Principals, p 56.

12 Idem.

demonstrate retrieval, recall, and accuracy of skill performance. There are also processes and skills that assist students in **producing** their responses, insights, creations, or judgments. The corresponding assessments reflect these critical and creative skills as they are developing. At all levels of instruction, we should be sure that our assessments correspond to both consumer and producer skills and processes[13] (cf Heidi Hayes Jacobs, 2000).

Self-evaluation of our cross-curricular work: A rubric for reviewing our design of interdisciplinary units

This rubric is conceived to assess understanding of designing an interdisciplinary unit. The score of 4 indicates that the teacher has excellent working knowledge of interdisciplinary unit design and is ready to implement a unit in his/ her classroom. The score of 3 indicates that the teacher has moderate knowledge of interdisciplinary unit design but needs to focus more on the alignment of skills, assessments, and essential questions. The score of 2 indicates that the teacher is struggling to make meaningful connections among the disciplines and needs to define a clearer organizing center for his/ her unit. The score of 1 indicates that the teacher should revisit the process of interdisciplinary unit design[14] (cf. Heidi Hayes Jacobs, Joyce Hannah, William Manfredonia, John Percivalle, and Judith C. Gilbert, 1989)

Criteria	4	3	2	1
Rationale	Precisely stated purpose with relevant supporting arguments; identifies reasons why design is selected.	Purpose stated.	Vague statements of purpose.	Purpose missing or ineffective.
Interdisciplinary component	Meaningful and effective connections to oth-	Explores connections to other disciplines.	Limited or forced connections to other	No connections to other disciplines.

13 Heidi Hayes Jacobs, (2000), Curriculum Designers, Inc. PowerPoint Presentation

14 Heidi Hayes Jacobs, Joyce Hannah, William Manfredonia, John Percivalle, and Judith C. Gilbert, (1989), Descriptions of Two Existing Interdisciplinary Programs, Interdisciplinary Curriculum: Design and Implementation. Heidi Hayes Jacobs, ed. Alexandria, Va.: Association for Supervision and Curriculum Development, p 51

	er disciplines.		disciplines.	
Designed to benefit the learner	Aim and benefits to specific student population made clear.	Aim stated.	Benefits unclear.	No purpose stated.
Essential questions	Highlight conceptual priorities; enable smooth transitions between disciplines; highly relevant to title/focus; embrace appropriate standards; fulfill outcomes.	Clear to students; sequenced; enable transitions among questions; related to unit title/focus; include some standards; address some expected outcomes.	Elicit limited responses; unevenly exhibit transitions between questions; vaguely relevant to title/focus; do not make standards clear; leave outcomes too vague to be attainable.	Not investigative; elicit literal responses; composed of arbitrary sequences lacking transitions; no relation to title/focus; do not fulfill outcomes.
Skills	Presented as precise, clear, and matched to needs of population; address essential questions; matched to standards throughout; written as descriptive verbs with specific techniques; variety of producer and consumer activities.	General skills identified; partially target population; address most essential questions; some attempt at matching standards; written as action verbs; some variety of activities.	Not appropriate for target population; unrelated to essential questions; identified but not matched to standards; written as verbs; limited variety of activities.	No attention to skills; no link to essential questions or standards; overemphasis on a single activity.
Assessments	Correlated to essential questions and specific skills; age-appropriate activities; a range of engaging activities that match learning styles; relevant to the goals and purpose of the unit.	Most activities directly correlated to essential questions and specific skills; inconsistent match with developmental level of the students; relevant to the goals of the unit.	Inconsistent correlation to essential questions and skills; not age-appropriate; tasks not relevant to students or to the goals of the unit.	No correlation to essential questions and skills; not age-appropriate; directions unclear and lacking in focus; irrelevant to goals of the unit.
Procedures	Classroom	Classroom	Classroom	Essential ques-

	activities target skills; assessments clearly linked to essential questions; follow a clear and logical sequence.	activities clearly connected to essential questions but lack connection to skills and assessments; inconsistent focus.	activities strongly connected to skills and assessments but not relevant to essential questions; lack of flow from activity to activity.	tions, if posed, not addressed by activities; direction and focus unclear.
Use of resources and materials	Range of engaging and appropriate print, human, and technology resources to enhance the unit.	Evidence of appropriate resources to fulfill outcomes.	Limited use of resources.	No evidence of resources.
Mechanics and language usage	Unit presented in a clear, consistent format; error free.	Unit presented in a format; few errors.	Unit presented in a cumbersome, unclear format; scattered mechanical errors.	No format; multiple mechanical errors.

Conclusion and recommendations

The more heavily interrelated the skills and information of students become, the more structured students' learning is. That allows for the metacognitive transfer of knowledge from one situation to the next and supports students' progressive growth. So instead of thinking about how different our area of expertise is from other disciplines, let's begin to consider how we can start a conversation with our colleagues about what all subjects actually we have in common.

The great dilema: What Approach To The Core Subjects: 'Discrete or Cross-Curricular?'[15] It is clear that there are benefits and pitfalls to both approaches. There is the huge benefit to students of having a broad and enriching learning experience which draws together subject knowledge. Although cross-curricular teaching can sometimes sacrifice vital learning in key subject areas if not planned for sufficiently. Overall the cross-curricular teaching should be prioritised more as long as the planning and implementation is carefully considered.

15 Mason, Ruby, Key Concepts of Cross-Curricular Teaching, , https://prezi.com/ev1rbae-1nix/discrete-or-cross-curricular/, 'Discrete or Cross-Curricular?', on Prezi, on 14 January 2015.

Within the limitations of a study like ours, teachers have witnessed the benefits of thinking skills through cross-curricular collaboration, and the extent to which this aids the transferability of knowledge and skills by students. We found that for some, the thinking skills activities helped learning by providing them with a focus for collaboration; although it is worth nothing that, for a small minority, their understanding of 'collaboration' was not always accurate.

The greatest benefits were experienced when there was dedicated time to 'thinking skills', when it was given discrete curriculum time, and undertaken in an explicitly collaborative setting. This enquiry has opened many possibilities to develop our thinking skills practice further – most particularly in the ongoing design and modification of the curriculum; closer collaboration between departments has been identified as a potential vehicle for this.

Our analyse has provided evidence that cross-curricular work using thinking skills benefits students of all attainment levels, and in different ways. The approach has encouraged students to see how thinking skills, like sorting and classifying, can enable them to approach a topic from a different angle. It also seems to help them see the transferability of such skills across their learning in a range of subjects. This could lead to a greater awareness of themselves as learners, and how they learn.

Cross-curricular approaches, intercultural considerations, the learning of languages following content-based teaching, materials development for the new curricula and methods constitute areas of current research worlwide. The challenging new ideas aspire to add useful insights into the relevant issues and promote ideas and practices. There is an increased interest among practitioners in the implementation of cross-curricular approaches which seem to take various forms according to the educational and cultural context. The results of such applications should be of interest to all stakeholders, national educational policy, researchers and teachers alike. There is the need of educational policy designers to evaluate educational innovations with regard to the impact of such approaches on learners' progress, and also the needs of teachers for more concrete teaching applications.

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Considerations Regarding the Application of IMO Maritime English Model Course 3.17 in Korean Contexts

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Abstract

As the importance of clear and effective communication at sea has been greatly emphasized due to an increased trend of multiculturalism on board both ocean-going and coastal vessels, the necessity of systematic English training based on 'Knowledge, Understanding, and Proficiency' specified in STCW has been also recognized. With these growing needs in mind, the International Maritime Organization (IMO) has updated the Maritime English (ME) Model Course 3.17 in 2015 by providing guidelines on language education within two separate categories, General Maritime English (GME) and Specialized Maritime English (SME); the IMO now attempts to create a new, global framework of ME education and training. In order to explore the ways of applying this modified version into the current ME education context in Korea and design an updated language curriculum, this new model course must first be thoroughly understood. Therefore, in this paper, the general structural features of the new model course will be explained, and the course focus set by IMO and to be considered and/or adopted by the Republic of Korea will be closely examined. Finally, suggestions on how to implement this revised model course into practice will be made with the following focuses: the development of localized curriculum for GME and SME; the provision of practical teaching guidance through relevant online and offline materials for class and self-study; and the establishment of qualification guidelines and a teaching support system for language teachers in maritime and language education.

keywords*: Maritime English, model course 3.17, General Maritime English, Specialized Maritime English, a new framework of Maritime English education and training, teaching pronunciation*

Introduction

With the increasing phenomenon of multiculturalism on board and the growing influx of seafarers whose mother language is not English in the global shipping industry (BIMCO, 2010), the importance of systematic English education that enables seafarers to clearly and effectively communicate between ships and ships to shore has become considerably more prominent (Kim and Kim, 2011). The International Maritime Organization (IMO) has also recognized the critical importance of English education for the safety of both ships and people, which ultimately led to a revision of Maritime English (ME) Model Course 3.17 (hereinafter, ME 3.17) in 2015.

According to documentation from a 2014 Human Element, Training and Watchkeeping subcommittee meeting (HTW 1/3/7, 2014), International Maritime Lecturers' Association raised the necessity of revising ME 3.17 by reflecting the amended 2010 STCW convention and newly added professional category(i.e., electro-technical officer). After a series of in-depth and detailed discussions among member States, the final updated version of the course was officially published in 2015; major revisions were made to its curricular structures and now included two language categories, General Maritime English (GME) and Specialized Maritime English(SME), and five different job categories (e.g., deck officer, engineers) onboard. Considering that this updated course version is established on the basis of the Knowledge, Understanding and Proficiency (KUP) in the STCW convention (2010), and suggested as an international guideline to ensure a high quality of ME education worldwide, it is important for us to consider an effective and practical implementation of this course in our teaching context.

Therefore, in this paper, a general introduction of the new ME 3.17 will be made and its major features, which will be applied in our current ME education and training system, will be fully discussed within three major categories: the general introduction of ME; the systematic divisions of GME and SME and their teaching and self-study hours; and the qualification of ME lecturers. Lastly, future directions for ME education and training suitable in Korean contexts will be outlined.

IMO Maritime English Model Course 3.17

General Introduction of ME 3.17

The purpose of ME 3.17 is to provide administrations, training institutions, and academies with a guideline to develop their own ME training programs that are the most suitable for their individual educational environments and contexts. ME 3.17 is largely divided into three sections: GME, SME, and the instructor manual. The sections of GME and SME are closely interconnected language curriculums, whereas the instructor manual is a separate teaching guideline specifically designed for teachers to utilize various English for Specific Purposes (ESP) language education theories and methodologies. More specifically, the course outlines all language education elements (e.g., grammar, vocabulary, phonology) and four different communication skills(i.e., listening, speaking, reading, writing) under a topic specific to maritime affairs; these topics are based on the KUP in STCW. See below for one of the 35 teaching units in the GME category; this illustrates the typical structure of the ME model course.

table 1: General Maritime English, unit 5

Topic	Discuss navigational routes and geographic locations; comprehend standard helm orders; use numerical information for engineering
Grammar	Prepositional phrases of geographic location and distance; it
Vocabulary	Compass points; longitude and latitude; distances on land and at sea; standard helm orders; numerical information for engineering
Listening and Speaking	Understand helm orders in the English language when steering the ship
Reading and Writing	Naming navigational routes and geographic locations

Within the three major topics, navigational routes and geographical locations, helm orders, and numerical information, a wide range of sub-categories are suggested under the six different linguistic elements. This example clearly shows that ME 3.17 is oriented around the English language, rather than strictly maritime knowledge. By integrating multiple language education

elements with maritime contexts for teachers, ME 3.17 aims to provide effective and systematic language training templates that can be directly applied in a real classroom setting.

General Maritime English and Specialized Maritime English

As previously discussed, ME 3.17 is largely divided into GME (elementary and intermediate levels) and SME. Starting in GME with basic English in general maritime contexts that can be commonly applied for all types of seafarers, the scope of maritime contexts is specifically narrowed down in SME according to the students' working positions and duties (e.g., deck officers, marine engineers, electro-technical officers). Whereas several types of common topics on board, such as ask for and give personal data, describe crew roles and routines, and name types of vessel, are dealt with in GME, more duty-oriented topics are provided in SME, including use charts and other nautical publications for deck officers and use publications of main and auxiliary machinery and associated control systems for engineering officers. Detailed recommendations for classroom and self-study hours are provided in each unit. The table below summarizes the recommended hours outlined in each section.

table 2: Recommended classroom and self-study hours

Category	**Levels/ Duties**	**N.of units**	**Classroom hours**	**Self-study hours**
General Maritime English	Elementary	18	443	93
	Intermediate	17		
Specialised Maritime English	Deck officers	2	90	56
	Engineering officers	2	105	56
	Electro-technical officers	2	104	54
	GMDSS radio operators	2	32	16
	Personnel in passenger ships	1	42	20

For example, students at a novice English level, who plan on becoming a deck officer, should spend a total of 533 classroom hours and 149 self-study hours on ME throughout four years of a university English curriculum. ME 3.17 clearly states that the starting point of the curriculum (i.e., whether to start from an elementary or intermediate level) is optional and based on the tar-

get students' English levels, and that all topics suggested in ME 3.17 do not necessarily need to be covered by language teachers. While each maritime topic and language element should be dealt with in a harmonious and organized manner, how to include these language guidelines in our Korean local language education context must be carefully considered. Such in-depth considerations should include not only the classroom hours, but also the self-study hours, which are used to maximize the language learning effects through continuous exposure after class.

Qualifications of Maritime English Instructors/Trainers

The third issue that needs to be highlighted is the qualification of ME trainers. The qualification is defined as follows in ME 3.17 (p.40):

> *The instructor should be a qualified teacher of English language who has the pedagogical skills for language teaching and has sufficient ability in the Communicative Approach, content-based instruction and task-based learning etc. and has an adequate understanding of marine subjects.*

As specified above, IMO's primary and core prerequisite for trainers is a qualification in English language education and the trainer should possess the ability to apply several types of ESP-oriented language education methodologies into the classroom with a sufficient knowledge in maritime subjects. Therefore, the first step in developing a solid language training program in line with the KUP in STCW is to hire a qualified language practitioner who has a wide range of ESP teaching methodologies, and to further train them on maritime subjects (Choi, Jang, and Chae, 2014). International Civil Aviation Organization (2010) also requires similar qualifications to aviation English trainers by dividing their grades into three different levels (i.e., Best / Very Good / Minimum) according to the trainers' academic qualifications: a master's degree in English Education, English Applied Linguistics, and Teaching English as a Foreign/Second Language for the best level and a certificate in the field of English education as a minimum prerequisite. The IMO and ICAO both require adequate understanding and general experience in the target fields; however, how to train English teachers/instructors to be familiarized with the target contexts through hands-on training experiences must be further discussed. Specifically for the Korean context, how to train marine-subject teachers who are currently teaching ME to be familiarized with English language and ESP pedagogies should be discussed in detail.

Suggestions for the Implementation of ME 3.17 in the Local Context

As discussed in the previous sections, the IMO is paying closer attention to the enhancement of seafarers' English competencies in a more systematic and organized manner. ME 3.17 aims at attaining a part of the IMO's goal, securing navigational safety, by providing an education/training guideline for effective communication, which is one of the major human errors leading to fatal accidents at sea (Jeong and Park, 2010). In this regard, it is vital that we, the Republic of Korea, listen carefully to the voices of IMO and try our utmost to meet the language requirements for the global shipping industry; thus, more and more Korean seafarers can enter into the global market with a satisfactory level of English language competency, and therefore, be internationally recognized as more qualified seafarers. In order to accomplish this goal, administrations, training institutions, and academies should complete the following items.

Qualifications of Maritime English Instructors/Trainers

First and foremost, the localized curriculum for GME and SME, whichever is the most suitable to Korean maritime education/training contexts, should be developed. As pointed out earlier, the total number of units suggested in ME 3.17 both for classroom and self-study are quite large (more than 35 units, at least) and the hours for teaching/learning and self-study are also extensive (around 600–700 hours). Considering that the students' English competency and the classroom hours allocated to ME are quite varied from school to school (e.g., maritime high school, maritime universities, maritime training institutes), the adequate ME curriculum, GME or SME, should be systematically developed based on the considerations of the individual institutions' characteristics and educational environments. This enables training bodies and their students to best adopt teaching and learning materials according to their individual needs (e.g., students' different levels of English) and their own learning/teaching priorities. For this, several types of language courses should be established; for example; 35 units of ME introductory course from elementary to intermediate for all personnel onboard (i.e., GME) and, respectively, two additional courses for deck/ engineering/ electro-technical officers (i.e., SME).

The Provision of Practical Teaching Guidance for Class and Self-Study

ME teaching and self-study materials and learning programs available online and offline should be systematically developed and provided. Considering that the IMO recommends a large number of hours spent on ME classes and self-study, a wide range of supporting materials, including text books, workbooks, online lectures, and mobile content, need to be provided alongside the localized language curriculum previously mentioned. This will not only enable teachers to conduct their English classes in a more dynamic and student-friendly fashion by actively utilizing audio-visual supplements throughout the class, but also gives students the opportunity to explore ME in a wider, more in-depth way through self-study after class. This can also be a good education tool for existing seafarers working onboard, as life-long education and self-study is required in their ever-evolving working environment. Ultimately, these materials and learning programs should be directly connected to the certification of seafarers by reflecting all language elements covered in the language program under the KUP in STCW and on the testing for Certificate of Competencies.

A Qualification Guideline for Language Teachers and the Development of a Support System

Thirdly, the provision of a practical teaching guideline needs to be tailored to actual applications in a real maritime language education environment. Even though a well-organized curriculum and a wide range of teaching/learning contents are fully developed and provided, it would be no use if ME teachers do not properly utilize this under optimal language education pedagogies. Furthermore, IMO requires ME instructors to have adequate qualification in the fields of English education and/or English applied linguistics, but it is not practical at the moment to implement this in the local context, as most current ME teachers did not major in language education subjects and, therefore, do not possess the required qualifications and/or certifications in language education. Since obtaining relevant academic qualifications and accumulating specialties in English education field also takes a considerable amount of time (i.e., at least four years of university study or two years in a master degree program in post-graduate school), a wide range of alternative options for current teachers must be provided. One alternative option would be a revised model that includes a very detailed practical teaching guideline. In the guideline, all teaching elements specified in ME 3.17 (e.g., vocabulary, grammar, phono-

logy) could be included with clear instructions on what should be taught and how should it be delivered to the students. Under a course title, for example, the following course contents could be specified in detail: knowledge and skills to be transferred in terms of reading, listening, speaking, and writing; the focus of language skills practiced; types of language education pedagogies recommended in each target element; the suitable duration of each section out of a whole class hour (e.g., 60 minutes). For the further development of instructors, IMO ME 3.17 could provide one sample unit for a 60-minute class, which is to describe weather conditions as follows:

table. 3 A Sample of Detailed Teaching Guideline in ME 3.17

Course: Maritime English: GME		**LESSON NUMBER: SIZE OF GROUP: 16**		**Date:** **Duration: 60 minutes**	
Main element Specific learning objective (in teaching sequence, with memory keys)	Stages: Activities (and type of interaction)	Instructor guidelines / notes	Time (mins)	Textbooks/ Materials/ Teaching aid	Language sub-skills practised
14.2 Vocabulary: months and seasons; objectives describing weather conditions .1 know and pronounce the names of moths and seasons correctly .2 use various adjectives to describe a wide range of weather patterns **14.1 Grammar: *it*** .1 use it to describe weather conditions **14.3 Phonology:** .1 pronounce groups of word-	**Lead in** - elicit today's date in full **Present / revise (ss → T./all)** - elicit names of months and seasons - drill word stress/pronunciation if necessary **Controlled practice(s. → s.)** - elicit description of today's weather present structure it's+adj. then elicit more examples using flash cards of weather symbols - ss. describe typical weather in different months/seasons/places	• Ask ss. which months are hottest. coldest. wettest etc • Revise functional phrases for stating preferences quickly • Start with open pairs, change to closed pairs • Check ss. know it's rainy/windy/foggy/ misty	10 5 15 10	English calendar Flash-cards showing symbols of different types of weather T1 p. 14.2-14.3	Speaking: accuracy Speaking: fluency Speaking: accuracy Speaking: accuracy & fluency

final consonant sounds clearly without inserting vowel sounds					

Along with the provision of a teaching guideline for immediate use with current language teachers, a guideline for ME language teachers' qualifications should be established for the long-term. A very detailed guideline for language teachers currently exists in ICAO document (2010) which includes minimum entry requirements for language trainers, a wide range of train-the-trainer issues, and the necessity of a continuous support system to regularly update the trainers' qualifications as a part of life-long education. This could be a possible answer for our local ME education/training environment. That is, systematic and continuous training opportunities on English teaching pedagogies and maritime knowledge should be given to marine-subject English teachers and English language practitioners, respectively, and regular updates on both fields should be provided through various kinds of workshops, seminars, and short courses.

Conclusion

English language competency is regarded as one of the critical factors directly gauging seafarers' competencies, specifically for those who are engaging in international voyage. In order to meet the requirements for the global shipping industry, it is vital that we thoroughly examine our domestic ME language education/training system to compare our curriculum and English teaching methodologies/approaches with those of IMO, and then renovate our system to be more internationally recognized, standardized, and in line with IMO's goals in maritime communication.

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Preaching the Gospel of the SMCP in Spain: The Jovellanos Centre Experience

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Abstract

The dissemination of the SMCP by the Jovellanos Centre started as early as September 1997, after the MSC/Circ 794: IMO Standard Marine Communication Phrases (SMCPs) was published the 10 th of June that year. From then on, a variety of teaching and dissemination actions have been taken to foster the use of the SMCP in a professional context, both ashore and on board. This paper summarizes the story of these initiatives along these last, almost, 20 years.

keywords*: SMCP, VTS, pilots, VTS/MRCC Operators, OOWs, regulatory framework, human element*

Introduction

The adoption of the IMO standard marine communication phrases (SMCP) as IMO resolution A.918 (22) marks the end of a stage that started as far back as 1973, the year that IMCO - as it was then called - decided, through the Maritime Safety Committee at its 27 session, that the common language to be used in the maritime context should be English and that it was necessary to establish the level of knowledge of this language and the vocabulary required to be able to navigate safely.

Beyond the mariners, captains and OOWs, there is a variety of prospective users of the SMCP, such as pilots, MRCC officers, VTS Operators, SAR unit captains, officers, skippers and pilots, Navy, Customs and Marine Police officers, Coastal Radio Operators, etc.

The need to use a standard language is established in a series of regulations of different types, both international and national, mainly IMO resolutions, IMO instruments, IALA Recommenda-

tions and Model Courses, and national laws and by-laws coming form 3 main domains, IMO, IALA and national regulations (BOE, Boletin Oficial del Estado, in the Spanish case:

IMO

- IMO Resolution A.918(22)
- IMO Resolution A.857(20)
- IMO Resolution A.960 on Pilot Training and Certification
- STCW- 95 Convention

IALA

- IALA Recommendation V-103
- IALA Model Course V-103/1

BOE

- BOE Resolution 4/2/2013 on Pilot Training
- ORDER FOM/2296/2002, 4th September, BOE N. 226 on A/B training

Being familiar with this regulatory framework seems to be the first step to take in order to understand the importance of the use of the SMCP in a professional marine communications context.

The following pages provide a brief summary of the applicable regulations which may prove useful to set the background to the problem of training mariners and other marine industry professionals for the use of a standardized technical and marine English.

Initial Situation

Generally speaking the SMCP teacher or instructor faces an audience that ranges from receptive to sceptical or even belligerent against them, it could indeed be said that among mariners the rejection to the SMCP is directly directlly proportional to the linguistic competence and the professional experience of the individual, being the two ends of the line the green student on the receptive side and the old salt captain or pilot on the sceptical/belligerent side.

After 19 years of teaching the SMCP I can say that generally speaking the new generation of mariners, pilots and MRCC / VTS operators are far more open and willing to accept the idea that the SMCP are a powerful and efficient communication tool than the ones I was dealing with at the end of the nineties.

Approach

Before entering in the detail of the specific training actions, there are some arguments to persuade the trainees to learn and use the SMCP on their professional day by day performance when using the English language, one is the power of the regulatory framework briefly introduced supra, other is the knowledge of the background that led to move from the old SMNV to the new SMCP, mainly related to some maritime disasters, the third is the problem of the liability implications that might be derived from communication issues in English.

As regards the second point, the connection between SMCP and maritime accidents, over these last years, safety at sea and the enhancement of measures aimed at protecting the marine and coastal environment have become issues of ever greater concern for the international maritime community.

This special attention to safety has periodically intensified as the inevitable trickle of accidents at sea occurred, with their consequent impact in the media and, therefore, on public opinion and on the politicians with responsibility in this area.

The accidents that produce greatest impact are those that involve a significant number of casualties or that cause considerable damage to the environment. In general terms, and from the catastrophe of the “Titanic” up to the most recent accidents, many of the advances achieved in the area of international regulations on safety at sea have originated from an accident that had serious consequences.

If we focus on accidents in which the lack of an adequate command of English - the common language adopted by IMO - contributed to increasing the number of lives lost and the damage suffered, we have to refer to two marine accidents that illustrate the key importance of certain training deficiencies among crews whose mother tongue is not English. The lack of an adequate level of competence in English among professionals on board these vessels becomes dramatic-

ally important in situations of danger, when the problems of communication play a decisive role in magnifying the most negative consequences of the accidents.

Two specific maritime accidents can serve as a reference to accompany these comments. The first was the fire that broke out in in the ferry, "Scandinavian Star", in which 158 people died. The second was the grounding of the "Sea Empress" tanker, which caused considerable damage to the marine and coastal environment around Milford Haven in Wales, UK. In both cases, the lack of an adequate level of knowledge of general English, and particularly of technical-maritime English, played a significant role in the development of the events that led to a tragic result: casualties in one case, and damage to the ecosystem in the other.

Besides these two marine accidents, I always try to explain the communication contributing factors of the Los Rodeos airport accident, as an excellent complement to understand the consequences of the lack of discipline in a context of professional use of English on the VHF radio.

The third aspect to be analysed and shared with the students or trainees has to do with providing them with some good, powerful reasons to learn and use the SMCP, and this is probably the most important part of the classes. My intentionhere is at least to open a window for them to keep their view to the way they use maritime English in their jobs and to explore how they can change their bad habits and gain discipline and professionalism when interacting on the radio with the maritime traffic or providing SAR or pilotage services.

Results

The specific training actions range from a one hour lecture on the SMCP delivered in the advanced ship-handling courses to a 30 teaching hours offered by the Introduction to the standardized maritime English course, or from the 10 hours of the technical English module (language) of the VTS Operator course based on the IALA v-103/1 course to the 2 hours module on IMO SMCP of the Basic training for pilots course.

All these training actions share special attention to the human element, to the motivation for using the phrases when the trainee, this be pilot, OOW, VTS operator or SAR unit captain or air pilot, is at work, otherwise the course would be a pure theoretical exercise, it will increase the knowledge of the student, but it will have little impact in his work and the contribution to mari-

time safety will be scarce. In some way there is always a sort of spiritual exercise, Saint Ignatius dixit, in the sense that the teacher/instructor has to convince the trainee to give up a wrong, undisciplined use of maritime English for embracing a new belief in a more professional and efficient approach to the particular communication tasks performed daily on the bridges of the ships, the operations rooms of the MRCC/VTS centres or the cockpits of the SAR helicopters and planes.

When preaching this gospel of the SMCP, besides their regulatory framework and background there are a few key elements or reasons that can help to persuade the trainee to learn and use this powerful communications tool, they can be organized in two groups:

Reasons related to the compliance with international and national legislation

- international regulations and the role of some specific jobs, such as VTS operator and pilot as Authority representative
- combatting lack of discipline in communications
- standardizing VHF interaction
- protection against liability implications in case of accident

Reasons related to linguistic aspects

- Minimum syntactical and morphological complexity
- Elimination of contracted forms
- Invariable plus variable structure
- One phrase: one event

The most comprehensive course on SMCP delivered in the Maritime Training Centre Jovellanos is the Introduction to the standardized maritime English (Introducción al inglés náutico normalizado), this is a 30 hours course for the maritime professionals (OOWs, MRCC/VTS Operators, Pilots, etc.) divided into 3 main modules: SMCP theory (10 hours), Applied Phonetics (10 hours) SMCP practice with marine simulators (10 hours), see the detail of the program and timetable as an example of a SMCP specific training action:

SMCP Course Program

Applied phonnetics (10 hours)

Introduction
Basic Phonetical Transcription
Vowels system
Consonants System
Stress patterns
Most common English pronunciation mistakes of the Spanish speaker
Practice

IMO SMCP Theory (10 horas)

Introduction
The standardization concept in the context of maritime English
The standard marine navigational vocabulary
Background, analysis and structure
General
SAR communications
VTS communications
Pilotage communications

COMMUNICATIONS EXERCISES IN THE VTS SIMULATOR (Briefing and debriefing)

General
SAR communications
VTS communications
Pilotage communications

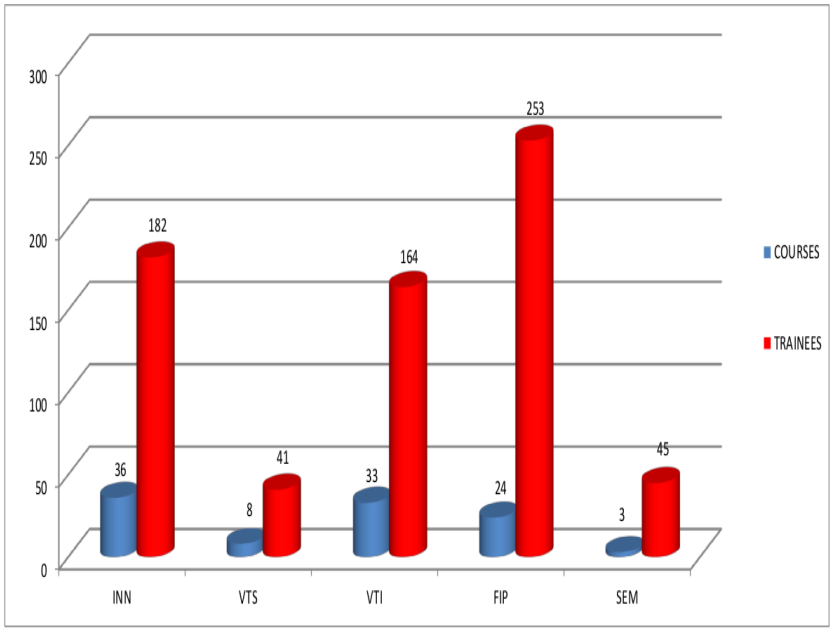
TIMETABLE

TIMETABLE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 9:00	INTRODUCTION TO THE SMCP	VTS SIMULATOR PRACTICE	PHONETICS	PHONETICS	VTS
9:00- 10:00	INTRODUCTION TO THE SMCP	VTS SIMULATOR PRACTICE	PHONETICS	PHONETICS	VTS
10:00- 10:30	**COFFEE BREAK**				
10:30 - 11:30	GENERAL	PHONETICS	PHONETICS	PHONETICS	PILOTAGE
11:30 - 12:30	GENERAL	PHONETICS	PHONETICS	PHONETICS	PILOTAGE
12 30 – 13 00	**BREAK**				
13:00 - 14:00	SAR	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE
14:00 - 15:00	SAR	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE	VTS SIMULATOR PRACTICE
15:00 –16:00	**LUNCH**				

Finally I would like to focus your attention on some statistic results/tables that may illustrate the path followed in the Jovellanos Centre along these last 16 years, as regards the SMCP training:

NUMBER OF COURSES AND TRAINEES 2000-2016

Name of the course/ Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
INTRODUCTION TO THE STANDARDIZED MARITIME ENGLISH)					4	4	9	6	4	4	3	2						**36**
					21	20	55	23	19	23	15	6						**182**
MRCC/VTS OPERATOR			2	3	2	1												**8**
			13	13	11	4												**41**
IALA VTS OPERATOR				1	3	2	4	4			2			5	2	6	4	**33**
				4	16	9	17	21			12			20	8	33	24	**164**
BASIC PILOTAGE									2	5	5	5	4	1	1	1		**24**
									20	50	52	56	48	7	8	12		**253**
ON-SITE WORKSHOPS (MRCC/VTSs Centres)					3													**3**
					45 (FINISTERRE, TARIFA, ALMERIA)													**45**



- **INN**: Introduction to the Standardized Maritime English
- **VTS**: MRCC/VTS Operator
- **VTI**: IALA VTS Operator
- **FIP**: Basic Pilotage
- **SEM**: Workshops

Conclusions

The experience acquired in Centro Jovellanos in teaching and divulgating these phrases since the issue of the Maritime Safety Committee circular MSC/Circ794 in June 1997, allows us to establish some conclusions based more on our experience in teaching the SMCP and on the observation of the students' reactions over the years, than on a statistical or sociological scientific method:

- The intensity of the initial rejection by mariners and other professionals of the use of the standard phrases in the sector is usually directly proportional to their years of experience in the use of English and to the level of linguistic competence of the seafarer / VTS operator / pilot. This means that if a mariner has been sailing all over the world for many years and using English in his daily work with no great problem and if, further, his level of linguistic competence in English is high, some kind of rejection to limiting himself to the discipline of the standard phrases and to making the effort required to familiarize himself with them and learn them can almost be guaranteed. On the other hand, mer-

chant navy students and the younger officers and pilots seem to have a more receptive attitude to the use of standard maritime English.

- The lack of knowledge of the MSCP is worrying. The students in courses such as VTS operator; Basic pilotage; Advanced course in ship handling and navigation, all professionals of more or less experience, have not a good command of elementary aspects of standard technical English, as, for example, wheel orders, establishing a position by bearing and distance or the construction of simple navigational warning messages.

- The applicable international regulation (STCW-95, SOLAS, IMO Resolution A.857(20), IMO Resolution A.918(22), IMO Resolution A.960(23), IALA V-103 Recommendation, etc.) do not appear to have had much influence on maritime and academic authorities when it comes to requiring that both employed professionals and future mariners learn and be able to use standard marine English, as stipulated in the STCW-95, for the certification of officers in charge of a navigational watch. The same applies to the VTS operators.

- From all the foregoing, it can be deduced that the attempt to develop a standard marine language, mainly the Standard Marine Navigational Vocabulary and the IMO Standard Marine Communication Phrases, and to extend its use, have not had the desired success. Although the approach was correct on paper, the final result of the implementation of the standard language was not as expected.

Among the possible measures that can be suggested to change this situation of both lack of knowledge of the SMCP and the unwillingness to use them in the professional context, the following are proposed:

- Courses in SMCP, for mariners, MRCC/VTS operators, pilots, SAR unit officers, Coastal radio Stations operators, etc. must be preceded or accompanied by an awareness of the importance of their use and of the framework of international regulations governing the knowledge and use of these phrases.

- The responsibilities that a professional on board a vessel or in a shore station like a MRCC/VTS Centre or CRS may face if his messages transmitted by radio in English are not understood and, as a consequence of this confusion, a serious accident occurs, must

be highlighted. The recording of the communications and their transcription are pieces of evidence demanded by the judges when the case is taken to court.

- As regards the teaching of standard maritime English, the teaching programs in the maritime training centres should be suitably adapted, as should the number of credits assigned to marine English and the levels of competence required from the students to enable them to comply successfully with the requirements of STCW in the other international regulations mentioned.

- In addition to the proper training of future mariners, the training of those inservice must not be forgotten. One only has t o recall that the United States Coast Guard has, for some time, been inspecting merchant vessels berthing in American ports and examining, among other things, the officers' competence in technical marine English, or that the UK Maritime and Coast Guard Agency requires mariners who wish to sail on British registered vessels to pass an examination in technical English (Marlins Test).

- The maritime and academic administrations in the various countries should make an effort to understand that the success of their mariners in an ever more demanding and competitive labour market depends also on their linguistic competence in English in general and on their knowledge of marine English, in particular, especially in its standard version, as required by the current international regulations.

- The use of complementary tools, in this case a VTS simulator, a ship handling and navigation simulator or a GMDS/SAR simulator can significantly enhance the standard phrases learning process by contextualizing their use and contributing to reinforce the communicative approach.

- Initiatives for enhancing the use of the SMCP on the frontline of the marine operations domain should be applied, a good example of this is the SMACP workshop tour delivered to all the 19 SASEMAR MRCC/VTS Centres in Spain in 2015 and 2016 by Dr. Michael-Uwe Witt.

- Finally, the scarcity of modern didactic material for teaching technical-maritime English and standard marine English must be mentioned. New materials - preferable on interactive media – have paramount importance to cope efficiently with the new knowledge re-

quirements established in the international conventions and regulations. This shortcoming seems to be is most evident in the Spanish speaking countries.

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A Needs Based Instructional Material in English for Filipino Maritime Students

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Abstract

In view of the dearth of instructional materials for Maritime English in the Philippines, this study was conducted to develop a needs-based instructional material to improve learning and instruction in English 1 for the Filipino maritime students of Palompon Institute of Technology (PIT), Palompon, Leyte. The study utilized the descriptive method of research, in which the necessary information, which served as inputs to the material, were collected through surveys and documentary analysis. Seventy-two (72) freshman maritime students chosen through stratified random sampling participated in the needs survey. From this number, 39 were randomly selected to participate in the pilot testing and evaluation of the material, along with 10 instructors teaching English 1. The data collected from the needs survey and evaluation were statistically treated by means of the frequency count, weighted mean, ranking and percentage. The findings were as follows: 1) The students need English mainly for academic purposes; 2) The material to be developed must comply with IMO and CHED requirements in terms of content; 3) The objectives and content of the existing syllabus must be revised, based on which the material must have both a maritime and linguistic content along with tasks that provide students with opportunities for authentic language use; 4) The material got high ratings in all the evaluation criteria; 5) To further improve the material, grammatical errors were corrected, its content was enriched, and its appearance enhanced. Since the material was found to be based on the learners' language needs, compliant with IMO and CHED requirements, and had gone through pilot testing, evaluation and revision, it was concluded that it was ready to be used in maritime English 1 classes.

keywords*: Maritime English, needs-based, descriptive method, Philippines*

Introduction

The insufficiency of materials in Maritime English is strongly felt in the Philippines, one of the world's top suppliers of seafarers. In a study conducted among the MET institutions in Region III, Capellan [1] found out that there is no common textbook for Maritime English. According to her, the STCW '95, which is published by the IMO, is the standard reference material provided by the IMO and the Commission on Higher Education (CHED). Other instructional materials that are used are teacher-made handouts from newspaper, magazine and journal articles related to the subject. SMCP formerly Maritime English has been created sometime in 2001 thus it is expected that there are minimal number of materials on this subject. Furthermore, the respondents of the study mentioned several titles of textbooks and references but almost all of them claimed that their respective institutions "lacked the necessary library resources and instructional materials that are needed in the subject." Capellan [1] pointed out that some local authors have tried to write books about Maritime English but a lot of them are compilers and arrangers of texts only.

The lack of textbooks, references and other materials in Maritime English specifically in PIT and its adverse effects on the communicative competence of the students prompted the researcher to consider developing her own teaching material that will provide her maritime students with appropriate and substantial learning experiences according to STCW requirements. According to Syatriana et al. [2] designing effective instructional materials is one way of improving the quality of educational opportunities. In addition, Howard and Major [3] believed that teacher-produced materials can be advantageous over commercially available materials in the following respects: 1) they enable teachers to take into account their particular environment and overcome the lack of "fit" between the textbook and the teaching context, 2) they are responsive to the students' individual needs and encompasses their first languages, cultures and experiences, 3) teachers can add a personal touch to teaching that students appreciate, thus increasing their motivation and engagement in learning, and 4) the materials can respond to local and international events with up-to-date, relevant and high-interest topics and tasks. It is for these reasons that an instructional material in English 1 for maritime students was developed.

This study aimed to develop an instructional material to improve learning and instruction in English 1 for Filipino maritime students of PIT, Palompon, Leyte, Philippines. Specifically, it sought answers to the following questions:

1. What are the language needs of maritime students that the material must address?
2. What requirements of IMO Model Course 3.17 and CMO must the material comply with?
3. What corresponding changes in the existing English 1 syllabus must be made on the basis of the identified learners' needs and the IMO and CHED requirements?
4. What specific content and tasks must the material contain to meet the learning objectives?
5. What are the results of the evaluation of the material by the students and instructors?
6. On the basis of the evaluation, what revisions need to be made on the developed material?

Methodology

The study utilized the descriptive method of research. The needs analysis survey questionnaire was adapted from Gonzalez et al. [4] to identify the language needs of the learners while the evaluation questionnaire was taken from the study of Navarro et al. [5] and the survey questionnaire of Clarion (2011), Liwagon (2012), Aguilar (2013), and modified by Melendez et al. [6] was utilized in this study to assess the various aspects of the completed instructional material. This study was conducted to the freshman students SY 2015-2016 of the College of Maritime Education of PIT, Palompon, Leyte, in which two degree programs are offered, namely: Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE). Slovin's formula was used in determining the appropriate sample size, with 90% level of confidence. With 72 students constituting the sample, stratified random sampling with equal allocation was conducted in order for this sample to be well balanced across the six classes of maritime freshmen. Out of this number, 21 BSMT students (seven from each class) and 18 BSMarE students (six from each class), for a total of 39, were randomly chosen to participate in the pilot testing and evaluation of the material. In addition, ten (10) PIT instructors teaching English 1 in the maritime and other programs served as evaluators of the material.

Results and Discussion

The Learners' Language Needs

The respondents revealed the following language needs: 1) using English for academic purposes, such as listening to the teachers' lectures, discussions in class, etc., 2) using English for interpersonal communication with people of other nationalities, 3) understanding native speakers of English, 4) developing their oral communication skills, 5) developing their reading comprehension skills and becoming independent readers, 6) improving their writing skills, 7) improving their grammatical ability, and 7) landing a good job after graduation through a good command of English. These needs must be taken into consideration in the development of the instructional material.

Requirements of IMO Model Course 3.17 and CMO

In addition to meeting the learners' language needs, the material must also comply with the requirements of IMO Model Course 3.17 and the CHED Memorandum Order on the content of Maritime English.

IMO Model Course 3.17. Among the requirements of IMO Model Course 3.17 is that trainees must enter the course at a point which suits their level of English. To determine the appropriate entry level for the intended users of the material, the following descriptions of English language proficiency levels provided by IMO [7] were considered:

Beginner – knows virtually no English and cannot understand spoken or written English. *False Beginner* – knows a few words or phrases of English. May be able to string together a very basic question or sentence using a very narrow range of English but has extreme difficulty making himself understood. Fails to understand natural spoken or written English adequately. *Elementary* - able to use English for very basic, everyday needs but without sustained fluency and with many errors. Has a limited understanding of spoken English, requires a lot of rephrasing, repetition and simplification of language. *Lower Intermediate* – can communicate satisfactorily about everyday topics with a restricted range of language. Able to understand native speakers of English talking at a measured pace with some rephrasing, repetition and simplification of language. *Intermediate* – at ease communicating about everyday topics and more abstract concepts. Makes some mistakes but is usually able to correct any major errors which prevent

him being understood. Able to understand the essence of native speaker of English but may misunderstand detail. *Upper intermediate* – confident in using a wide range of language to express himself accurately and fluently in all but the most demanding situations. Makes some minor mistakes but these do not generally prevent him being understood. Experiences occasional problems of comprehension but these can usually be overcome with a little help. *Advanced* – near native-speaker proficiency in all aspects of communication. Has no difficulty with comprehension and can express abstract concepts accurately and fluently. Able to resolve any problems of comprehension effectively.

After having taught Maritime English for many years, the researcher believes that PIT's maritime students in general possess an elementary level of proficiency in English upon entry into the program. This personal assessment is corroborated by the results of the English proficiency test, a component of the college admission test, which all applicants to the PIT maritime program are required to take to qualify for enrolment. Thus, Core Section 1 of the IMO Maritime English model course, which provides a guide for instructors responsible for teaching English at elementary to lower intermediate language levels, was deemed appropriate for them. It is intended to prepare the students for entry into Core Section 2, which caters to those in the intermediate to advanced English language levels.

The IMO Model Course [7] stipulates that students admitted to Core Section 1 must be at elementary language level and must be able to: 1) read and write using the Roman script, 2) demonstrate familiarity with the English sound/spelling system, 3) hold short, simple conversations concerning familiar topics in the here and now, 4) provide basic, personal information with minimum prompting, 5) understand simple instructions on familiar topics, 6) respond to simple questions on familiar topics.

In addition, they should also understand and be able to use the following English structures with reasonable accuracy: 1) subject pronouns and object pronouns, 2) possessives, 3) the present simple tense in the positive, negative and question form (of basic, regular verbs), 4) wh-question words, 5) basic irregular verbs (be, have, do, etc.), 6) modal verb can, 7) word order (subject-verb-object), 8) articles a/an and the, 9) regular, plural noun forms, 10) common adjectives, 11) basic conjunctions, and 12) cardinal numbers.

Considering the content of Core Section 1, the material must integrate the elements of grammar, vocabulary and pronunciation with practice of the four language communication skills of

listening, speaking, reading and writing, while its maritime content must include generalized maritime topics, most of which are relevant to all students.

CHED Memorandum Order (CMO). Appended to CHED Memorandum Order (CMO) No. 59 s. 1996 is the syllabus for English 1 (Study and Thinking Skills in English), which shows that the focus of the course is on the development of reading and writing skills. The teaching of these skills is intended primarily to help the students meet the demands of their academic work in English and, by implication, apply these skills, whenever necessary, in their future workplace. The reading skills are as follows: 1) scanning and skimming, 2) reading for comprehension, 3) reading for information/details, 4) using context clues, 5) inferencing and drawing conclusions, 6) organizing information into an outline, 7) summarizing and paraphrasing, and 8) reading and interpreting non-prose forms. In addition, English 1 students have to learn to write paragraphs developed through the following rhetorical techniques: 1) description and narration, 2) definition and classification, 3) comparison and contrast, 4) cause and effect, and incorporate these techniques in the writing of a long essay.

Inasmuch as the material to be developed is for maritime students taking English 1, it must cover the learning items specified in the CHED syllabus.

Changes in the Existing Syllabus

Since the syllabus serves as the blueprint for the development of the instructional material, certain aspects of the existing syllabus had to be revised in order for the material to address the language needs of the learners and the requirements of IMO and CHED on the content of Maritime English.

Objectives. As borne out by the results of the survey, the most urgent needs of the learners for the use of English are both academic and personal and can be summarized as follows: 1) using English for academic purposes, such as listening to the teachers' lectures, discussions in class, etc., 2) using English for interpersonal communication with people of other nationalities, 3) understanding native speakers of English, 4) developing their oral communication skills, 5) developing their reading comprehension skills and becoming independent readers, 6) improving their writing skills, 6) improving their grammatical ability, and 7) landing a good job after graduation through a good command of English. Since the objectives in the existing syllabus are not attuned to the learners' academic needs, the said objectives need to be modified.

In the following table, the original objectives and the modified objectives are presented, alongside the needs of the learners that each objective is intended to address.

table 1. Original objectives vis a vis the modified objectives

Original Objectives (1)	Learners' Needs Addressed by (1)	Modified Objectives/Learning Outcomes (2)	Learners' Needs Addressed by (2)
General		**General**	
1. Develop trainees' ability to use English in the basic language level.	General	11. Utilize effective language and thinking skills and language learning strategies necessary for academic studies.	Academic
		2. Use English in the basic language level.	General
2. To learn basic maritime English as recommended in the English language guidelines of Part B – VI/1 of the STCW 1995 Code.	Occupational	3. Communicate in basic maritime English as recommended in the English language guidelines of Part B – VI/1 of the STCW 1995 Code.	Occupational
		Specific	
Specific		1. Explain the meaning of oral and written materials ranging from general interest to discipline specific with emphasis on inferential and critical reading;	Academic
1. Ask for and give personal data	Personal Occupational	2. Organize information efficiently in the form of outlines, charts, etc. both for the materials read and materials to be written;	Academic
2. Describe crew roles and routines	Occupational Occupational	3. Illustrate information using orderly strategies i.e chronological, logical, spatial, etc.	Academic
3. Name types of vessels; describe parts of a vessel;	Occupational	4. Summarize and paraphrase materials read;	
4. Describe the location and purpose of safety equipment;		- Interpret and construct non-prose texts;	Academic
5. Discuss navigational routes and geographic locations; understand standard helm orders	Occupational	- Write unified and coherent paragraphs/essays using different rhetorical devices;	Academic Academic
		Maritime English	
6. Name positions on board; ask for and give directions on board and ashore;	Personal	1. Ask for and give personal information; identify nationalities;	Personal; Occupational
7. Express personal likes and dislikes; discuss leisure time on board		2. Describe crew roles and routines; practice ordinal numbers; tell the time; talking about daily routines;	Occupational
		3. Identify places on board; name types of vessels; describe parts of a vessel;	Occupational
		4. Describe the location of safety equipment; distinguish safety commands; identify safety equipment;	Occupational
		5. Discuss navigational routes; describe geographical locations; practice large numbers; give approximate distances; identify direction;	Occupational
		6. Express agreement and understanding; name positions on board; ask for and give directions on board and ashore;	Personal; Occupational
		7. Express personal likes and dislikes; discuss leisure time on board; describe the frequency of daily activities	Personal

Content. The modification of the objectives required corresponding changes in the content of the existing syllabus. In order to meet the objectives on the use of English for the learners' academic needs, the content of the CHED English 1 syllabus, which essentially covers the development of reading and writing skills, was incorporated with the reading and writing content of the existing syllabus. In short, the content of the existing syllabus was adjusted to accommodate the learning content of the CHED syllabus. More specifically, the adjustment entailed merging the

language functions in Lesson 1 with those in Lesson 2, Lesson 3 with Lesson 4, and Lesson 5 with Lesson 6, along with their corresponding language forms, and assigning alongside the merged forms and functions in each lesson the appropriate reading and writing activities prescribed by CHED.

To summarize the aforementioned changes, the seven lessons in the existing syllabus were compressed into four. The integration of the lessons was necessary in order to cover all language functions specified in Core 1 in the 54 lecture hours allotted for English 1 in a semester and to facilitate the integration of the various rhetorical devices specified in the CMO. Lesson 1 simulates the first day of a seafarer on board by asking for and giving personal data and getting to know the organization on board by describing crew roles and routines. Lesson 2 orients the would-be seafarer to the types of vessels, the parts of a vessel and the location and purpose of safety equipment. Lesson 3 familiarizes him/her with navigational routes and geographic locations to enable him/her to understand standard helm orders and name positions on board, and at the same time ask for and give directions on board and ashore. Lesson 4 provides the future seafarer with contexts or situations to express his/her personal likes and dislikes and discuss leisure time on board. The merging of the lessons also necessitated modifications in the thematic content of each lesson.

These changes were integrated with the IMO-mandated linguistic and maritime content to develop a revised English 1 syllabus that is geared toward addressing the learners' communicative needs both as students and future seafarers.

The sequencing or arrangement of the content in the revised syllabus is basically similar to that of the existing syllabus, which is according to their degree of importance in meeting the students' academic, personal and occupational communication needs. The language functions constituting the maritime content, for instance, were arranged on the basis of their need to express their intentions, first, as new members of the crew familiarizing themselves with their new job and work environment (*asking for and giving personal information, identifying nationalities,* etc.), and later, when they are well settled in their jobs, as social beings with the need to foster social relationships and with fellow workers on board (*expressing likes and dislikes* and *discussing leisure time*).

In the same manner, the components of the linguistic content were arranged according to their order in the existing syllabus, as follows: 1) grammar, 2) vocabulary, 3) phonology, 4) listening,

5) speaking, 6) reading, and 7) writing. This sequence is solely based on the outline provided in the Model Course.

The following table illustrates how the requirements of STCW '95 and CHED are all integrated in the revised needs-based English 1 syllabus, as the basis for the development of an instructional material that meets the learners' actual needs for learning the language.

table 2. Integrating the IMO and CHED requirements in the revised syllabus

LESSON	THEMATIC CONTENT	LANGUAGE FUNCTIONS (based on IMO)	LANGUAGE FORMS (based on IMO)	READING (based on CHED)	WRITING (based on CHED)
I	The Seafarer and His Job	Asking for and giving personal information; identifying nationalities; describing crew positions; practicing ordinal numbers; telling time, talking about daily routines	Grammar: Present simple, pronouns, present simple question and negative form; third person singular, prepositions of time Vocabulary: Adjectives of nationality; basic verbs of routines, numerical information; International Maritime Alphabet Phonology: question intonation; Ordinal numbers	Reading for comprehension; reading for information/details, scanning and skimming, context clues, reading and interpreting non-prose form	Developing paragraph by description
II	The Vessel: Its Locations and Safety Regulations	Naming types of vessels, describing parts of a vessel, Identifying and describing places on board, identifying safety equipment, distinguishing safety commands, describing locations of safety equipment	Grammar: there is/are, articles; prepositions of place; possessives, Prepositions of place, noun modifiers Vocabulary: types of vessels; parts of a vessel, safety equipment Phonology: word stress, rising intonation -wh question	Reading for comprehension; scanning and skimming, context clues, organizing information into an outline	Developing paragraphs by definition, classification, and cause and effect
III	Finding Your Way around the Vessel and Ashore	Describing geographic location, giving approximate distances, identifying direction/places on board, asking for and giving direction	Grammar: Prepositional phrases of geographic location, prepositions that describe distance, introduction to the imperative form, question forms/phrases that identify location commands, large numbers, sequencing adverbs Vocabulary: geographical reference word/compass points; longitude and latitude; distances; on land and at sea; positions on board/ vessel directions; places around town Phonology: Large numbers	Scanning and skimming, context clues, Organizing information into an outline	Developing paragraph by comparison and contrast.

IV	Leisure Time on Board	Expressing likes and dislikes, describing leisure activities, describing the frequency of daily activities	Grammar: Gerunds; adverbs of degree/ frequency Vocabulary: Adjectives of like and dislike/ adjectives of opinion leisure activities Phonology: sentence stress to emphasize degrees of preference	Reading and interpreting non-prose forms, summarizing and paraphrasing, inferencing and drawing conclusions	Writing an essay

Specific Content and Tasks

In order for the learning objectives of each lesson to be attained, both the content of the material and the communicative activities or tasks it provides must be relevant.

Content. As presented in the preceding section, the maritime content, which is expressed in terms of language functions situated in a maritime context, was largely based on Core 1 of IMO MC 3.17 and adapted to the learners' needs for the use of maritime English on board.

The linguistic content, which comprises the structural elements of grammar, vocabulary and phonology, as well as the skills of reading, writing, speaking and listening, was also mainly derived from Core 1 of IMO MC 3.17, with the integrated parts from the CHED syllabus.

The grammatical structures to be taught in each lesson were determined in terms of a given language function, which provides a meaningful context for these structures and thus facilitate the learning of the target language and using it for the intended purpose. Vocabulary is basically specialized maritime vocabulary derived from the English model course and from authentic reading texts, and phonology or pronunciation items are given to ensure that the seafarer's spoken English is comprehensible to the members of a ship's multinational crew.

The following table presents the specific content for grammar, vocabulary, and phonology and how they correspond to the language functions and learning objectives of each lesson presented in the previous table. The skills of listening, speaking, reading and writing are linked together in the lesson, as they usually occur in the real world, as shown in Table 3.

table 3. Content of grammar, vocabulary, phonology, listening, speaking, reading and writing lessons

Lessons	Grammar	Vocabulary	Phonology	Listening	Speaking	Reading	Writing
I	Present simple, Pronouns, Present simple question and negative form, Third person singular, Prepositions of time	Adjectives of nationality, basic verbs of routine, numerical information, International Maritime Alphabet	Question intonation, ordinal numbers	Recognize key questions, distinguish words/phrases, ship's call signs	Personal information exchange, discussion of daily routines	Reading for details/ information: Relevance of STCW 1995 English requirements to seafarers; Functions and Responsibilities of Ship Officers and Crew	Writing a paragraph by description
II	There is/are, Articles; Prepositions of place; Possessives, Prepositions of place	Types of vessels; Parts of a vessel, Safety equipment	Word stress, Rising intonation -wh question	Identification of Places; Discriminating Between Words; Identifying location of equipment on board	Information Exchange about Places on board; Checking the location of equipment on board	Reading for comprehension , for information /details:Description about Places on Board; Coping with Emergencies on Board	Writing paragraphs by Definition, Classification and Cause -effect relationship
III	Prepositional phrases of geographic location, prepositions that describe distance, introduction to the imperative form, question forms/phrases that identify location commands, large numbers, sequencing adverbs	Geographical reference word/compass points; longitude and latitude; distances; on land and at sea; positions on board/ vessel directions; places around town	Large numbers	Identifying places and numbers on a nautical chart	Information exchange about geographic location/ about native towns and direction	Interpreting non-prose graphic materials; Transfer of numerical information; Detailed directions	Writing paragraph by comparison and contrast
IV	Gerunds; adverbs of degree/frequency, Context clues	Adjectives of like and dislike/ adjectives of opinion leisure activities	Sentence stress to emphasize degrees of preference	Appreciating films: a leisure time activity	Information exchange about leisure activities, Frequency of daily activities	Interpretation of chart information/non-prose materials, Reading an essay, Inferencing and drawing, conclusions , Summarizing	Writing an Essay

				and paraphrasing an essay

Tasks. Table 4 presents the specific tasks for grammar, vocabulary, phonology, listening, speaking, reading and writing according to the objectives and underpinning functions of each lesson.

table 4. Tasks for grammar, vocabulary, phonology, listening, speaking, reading and writing

Lessons	Objectives	Functions	*Grammar, Vocabulary, Phonology*	Listening, Speaking, Reading, Writing
I	Ask for and give personal information Identify nationalities Describe crew roles and routines	Asking for and giving personal information; Identifying nationalities; Describing crew positions; Practicing ordinal numbers	Grammar: Using dialogues, using listening texts, interview, using visuals, personalization, eliciting the form, group work, information gap Vocabulary: Contextualization, gap-fill exercises Phonology: Modelling sounds, tracing pitch and intonation	Listening: Guessing the situation, listen and complete, put in sequence Speaking: Back chaining drills, guided dialogue, interview Reading: Understanding text purpose, table completion, data interpretation Writing: Guided writing
II	Name types of vessels Describe parts of a vessel Describe the location and purpose of safety Equipment	Naming types of vessels, describing parts of a vessel, Identifying and describing places on board; Identifying safety equipment; Distinguishing safety commands; Describing locations of safety equipment	Grammar: Using visuals, drilling, using reading texts, writing the form, semi- controlled writing Vocabulary: Contextualization, visual representation, Phonology: Literal dictation/modelling sounds, picture prompts	Listening: Brainstorming ideas, identifying the purpose of the conversation, listen and complete Speaking: Using reading text, free role play/simulation, theater accent/group work Reading: Understanding text purpose, text transfer Writing: Guided writing
III	Discuss navigational routes and geographic locations Name positions on Board Ask for and give directions on board and ashore	Describing geographic location; giving approximate distances; Identifying direction, Expressing agreement and understanding; asking for and giving directions; finding your way around the vessel and in town	Grammar: Using reading texts, using visuals, concept checking, personalization, using Dialogues Vocabulary: Labeling visuals, multiple choice gap-fills, visual representation Phonology: Literal dictation, counting sounds	Listening: Listen and follow, listen for comprehension Speaking: Listen and follow Reading: Understanding text purpose Writing: Guided writing
IV		Expressing likes and dislikes, describing leisure activities, describing the frequency of daily activities	Grammar: Time lines, visual representation, circle games/group work, gap-fill exercises, using writing texts, matching tasks Vocabulary: Visual representation, guessing meaning from context, gap-fill exercises Phonology: Mini dialogues	Listening: Listen for comprehension Speaking: Group work, information exchange, group questionnaires Reading: Text transfer, understanding text organization, context clues, , summarizing, paraphrasing, drawing conclusions Writing: Students' diaries, guided writing

Evaluation of the Material

The select group of maritime students and English instructors evaluated the material in accordance with the following criteria:

Relevance of content. The respective composite means of 4.84 and 4.96 show that both maritime students and instructors strongly agreed that the content of the material is relevant to the course. All the indicators were given high ratings, although their rankings vary: (1) The topics presented are relevant to the course. (2) Exercises and activities for students are all maritime based. (3) Examples for each topic are realistic. (4) The material uses variety of techniques such as small group discussions and pair work construction, etc. to make concepts clear. (5) The content of the material is accurate in relation to the course description and objectives of the course.

Structure and organization. On the whole, the structure and organization of the materials earned a composite mean of 4.95 and 4.86 from the instructors and students, respectively. This implies that the respondents found the material well structured and well organized based on the following indicators: (1.) The arrangement of each topic is organized and clearly presented. (2) The text used is readable with enough space for exercises and to create notes for the students. (3) Contents are clearly organized into units or chapters. (4) There is no redundancy on the topics and exercises on each chapter.

Strategies and presentation. The item "the material has a clear and attractive print" has the lowest mean of 4.3 or "agree" among the instructors' ratings, which is slightly lower than the rating given by the students to the same item. This implies that there is a need to improve the print aspect of the material to make it even more readable. On the other hand, both groups of respondents strongly agree that the material has "clear instructions for exercises that will make them understand clearly. As shown by the composite mean rating of 4.63 from the students and 4.96 from the instructors, it can be said that both groups found the strategies and presentation commendable.

Clarity, appropriateness and relevance of the activities. The clarity, appropriateness and relevance of the activities contained in the material were rated by the instructors only since they were regarded as more knowledgeable about these areas than the students and so were in a better position to evaluate them. It shows that, the instructors strongly agreed that the activities

provided in the material have clarity as evidenced in its clear and standard size print, its organization and sequence, the usage of clear and simple language appropriate to the students' proficiency level and the instructions are comprehensible and clearly written.

On the whole, the instructors were in strong agreement that the activities in the material are appropriate because it can enhance the students' communication skills and lead the students to attain the objectives.

Based on the composite mean rating of 4.9, the instructors found the activities in the material to be relevant in teaching Study and Thinking Skills in English, to real-life situations, and to the instructional objectives. They also found that the activities contained suitable and appropriate tasks in the teaching of Study and Thinking Skills in English. These findings imply that the material is a good learning resource for both the students and their instructors and must be utilized in the classroom to enhance learning.

Revisions on the Material

The maritime students and language instructors who evaluated the material gave it high ratings, particularly in the relevance of its content, its structure and organization, strategies and presentation, as well as in the clarity, appropriateness and relevance of its activities. Nevertheless, they did not close their minds to the fact that the material could still be improved and raised to a higher level if it were to really answer the needs of the Institute's maritime students.

Conclusion

Based on the findings of the study, the newly developed instructional material in English 1 for maritime students is needs-based and meets the requirements of IMO and CHED in terms of content. Being grounded on communicative methodology, it provides the learners with communicative activities or tasks that are meaningful and provide opportunities for authentic language use. Moreover, it has gone through pilot testing and evaluation by students and teachers, who gave it high ratings in terms of the relevance, structure and organization, and strategies and presentation, in addition to the fact that the instructors found its activities to be clear, appropriate and relevant. It can therefore be concluded that the material is now ready for utilization to

help improve learning and instruction in English 1 for Filipino maritime students, particularly in the absence of textbooks in maritime English.

Recommendations

1. The use of the instructional material be prescribed in all English 1 classes in the maritime program, with the instructors guided by the newly designed syllabus. The Institute can facilitate the reproduction of copies through its Instructional Media Office (IMO).

2. To improve its quality and relevance, the instructional material be subjected to further evaluation by instructors and students after it has been utilized for one or two semesters. Another evaluation instrument, which looks into how effective and efficient it is and how far it meets the objectives of the course and promote better learning may be used.

3. The other instructors teaching English 1 in the maritime program be oriented on the proper way to use the material in their classes.

4. A similar material be designed and developed for English 1 classes in the non-maritime programs to remedy the textbook problem and for the other students to benefit from it as a tool for learning.

5. Further research be made on the use of the material, such as an experimental study on the effect of the material on the achievement of the students in English 1.

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CLIL: Integrating General Maritime English and Naval History

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Abstract

CLIL (Content and Language Integrated Learning) refers to situations where academic subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, i.e. the learning of content and the simultaneous learning of a foreign language. It is sometimes designated by the acronym FLAME (Foreign Languages As a Medium for Education). At Ecole Navale, the French Naval Academy, several courses are taught in CLIL: a geopolitics course on the Arctic, several Ethics courses, a leadership course, a physics course on alloys, a stability course, to name only a few. This paper describes a CLIL course conducted at Ecole Navale, whereby General Maritime English (GME) and naval history are integrated. It is a 2nd year naval history course on the war in the Pacific. We will first present CLIL, and say what CLIL is not. Secondly, a description of the first chapter of the course, the Pearl Harbor raid, shall be given. Lastly this paper will discuss the question of the teaching staff and of their competency in English, as well as the benefits and the costs and constraints of a CLIL course, and make a few recommendations regarding the content of such courses, as well as regarding the type of learning tasks, and the assessment of learning outcomes.

keywords*: CLIL; EMILE; Content and Language Integrated Learning; didactics; Maritime English; blended learning*

Introduction

In France, where foreign policy fought for decades to maintain French as an alternative *lingua franca*, there is now acceptance of the need for more English-medium instruction [7]. This has become true in the general secondary and university education systems, as well as in vocational training. It is so because in some professional domains, English is the official language, either

de facto, or by legal convention. The maritime domain is in the second category, since the STCW78 convention (as amended) imposes mandatory use of SMCP (part A) in English to all member states, at least for ship-to-ship and ship-to-shore communication.

One obvious way to improve the quality of mariners' English is to increase the amount of training hours devoted to it. However, since training costs money, and there is an ever-present demand for cost-effectiveness, the academic world has tried innovative pedagogies in an attempt to optimize class hours. One such approach is CLIL.

What is CLIL?

Why CLIL? What are its expected advantages?

Content and language integrated learning (CLIL) refers to a teaching method which appeared in the early 1990s. It is similar to (but distinct from) language immersion [19] and content-based instruction [3]. It is an approach for learning content through an additional language (foreign or second), thus teaching both the subject and the language. The term encompasses different forms of using language as the medium of instruction. CLIL is fundamentally based on methodological principles established by research on "language immersion". This kind of approach has been promoted by the European Commission [8; 21] because:

- it can provide effective opportunities for learners to use their new language skills now, rather than learn them now for use later,
- it opens doors on languages for a broader range of learners, nurturing self-confidence in learners who have not responded well to formal language instruction in general education,
- it provides exposure to the language without requiring extra time in the curriculum, which can be of particular interest in vocational settings.

One obvious way to integrate language and content is through the use of learning material in the target language. Given the wide availability of documents in English, this is generally quite easy to do for this particular language. However, research has shown that this is by no means sufficient: when the level of linguistic competency is unsatisfactory, instructors will tire out of

the experiment [25]. However, factual and linguistic knowledge will converge through the integration of content and language, if the linguistic competency condition is respected [24; 31 quoted in 29].

Not just teaching in English

According to COYLE et al. [10], CLIL is not simply education *in* an additional language; it is education *through* an additional language based on connected pedagogies and using contextual methodologies. As such, CLIL assumes that a check be made during curricular design that the cognitive load required to deal with the foreign language does not exceed the capacity of the learner lest he/she would fail to attain any of the two objectives. Such reduction of the cognitive load can be achieved by a simplification of the lexical load of a course thanks to lexicons, for example. Another factor to reduce the difficulty of attending a course in a foreign language is multimedia content, in the form of images and/or animations, particularly when the knowledge being imparted is of a dynamic nature [2]. Furthermore, some of the pre-required knowledge necessary for the in-class activities may be provided in a flipped classroom approach, prior to the in-class session, in video content. Well-designed videos will combine voice, images, and caption to facilitate understanding for all kinds of learners. If their duration is short enough, learners will be able to watch them several times, gradually gaining better understanding each time. Related quizzes will both facilitate understanding, and provide feedback, informing students as to the efficiency of their learning.

Teaching staff and language proficiency

Another issue regarding CLIL is the choice of the teaching staff. On first analysis, two obvious options spring to mind: the *content* specialists and the *language* specialists. However, the result (as far as language is concerned) will likely differ significantly, as we shall see below.

- On the one hand, there are ***specialists of the subject*** to be taught, i.e. persons who, because of their personal history are competent both in English and the subject. These can be native English speakers who are living/teaching in another country (visiting faculty), or non-native-English specialist of the subject who lived in an English-speaking country long enough to acquire a fluency in the language (if not a mastery) at least equivalent to that of a language teacher. However, this ideal scenario is in fact

quite infrequent: native English speakers are not that common amongst the academic staff of non-English speaking countries.

- On the other hand there is the option of ***the language teacher*** who happens to be competent in the subject to be taught: people who became language teachers after a career in the designated domain for example, or people who studied the subject at high level in college before becoming ESL[1] or ESP[2] teachers.

For the course described in this paper, each of the teachers is in fact a language teacher who happened to know about the topic of the course, learned more about it through research, and designed the content of his/her workshop with the assistance of a naval history colleague.

Fig 1: The online course (videos and quizzes)

1 English as a Second Language

2 English for Specific Purposes

The course

The Pacific war course is a set of 2-hour "workshops", each taught by a different specialist teacher. It consists of 8 hours of class, in 4 chapters: the Pearl Harbor raid, the battle of Midway, the battle of Guadalcanal, and the island-hopping campaign, respectively. Students also follow a methodology class on how to make a presentation, and the final assessment is conducted through an oral exam consisting of a 10-minute presentation to a jury of two (one content specialist and one language specialist, each with their own assessment grid), followed by questions (which may be language-related, in the case of the linguist). The theme of the presentation is disclosed to midshipmen 3 days prior to the exam. Let us examine one of these workshops in detail: the Pearl Harbor workshop.

Fig 2: The Prezi document

The teacher who volunteered to teach the Pearl Harbor workshop happened to hold a Master's degree in American civilization, with a thesis on the entry of the USA in WW2. He thus knew the subject quite well before beginning his preparation for teaching the course. This pre-existing

knowledge was complemented by extensive reading on the subject, in order to be fully competent as far as the subject matter was concerned.

To facilitate learning for the students, several of the aforementioned techniques were used:

- A wiki dictionary was created online, where teacher and students can add vocabulary which they deem essential to understanding the course. This can be accessed in the beginning of, and during the course to reduce the lexical load of the documents used both in and out of class.

- The factual part of the material is flip-taught as a blended course [18]. On a Moodle Learning Management System (LMS), students have access to short lecture videos in which factual knowledge is delivered (figure 1). This includes all data regarding dates, casualties, people and warships involved, for example, which will be assumed as known by all learners *before* they enter the classroom. These videos last between 3 and 9 minutes, and the total time required to watch all mandatory videos is 40 minutes. The videos are screencasts[3] of commented presentations.

- Additionally, the document[4] used to create the videos (figure 2) contains a large amount of extra information which, although not directly referred to within the course's videos, may be of interest for individual students, depending on their assigned topic of discussion, during the in-class work and/or the final exam. It is, of course, available to students.

- Together with the videos, we have provided interactive maps and charts of Pearl Harbor, which learners can explore to learn about each of the vessels present, and their actions during the battle. These are multimedia material with sound, video, animations, and of course images and text produced by MSNBC[5] and the National Geographic[6]. Altogether, the amount of preparatory work before coming to class is estimated at 90 minutes. This is presented as a mandatory requirement, and completion is monitored through the LMS

3 A screencast is a video created from a commented slideshow. See [18] for a detailed explanation of how (and with which digital tools) this is done.

4 Available at http://goo.gl/3Rp4Ti

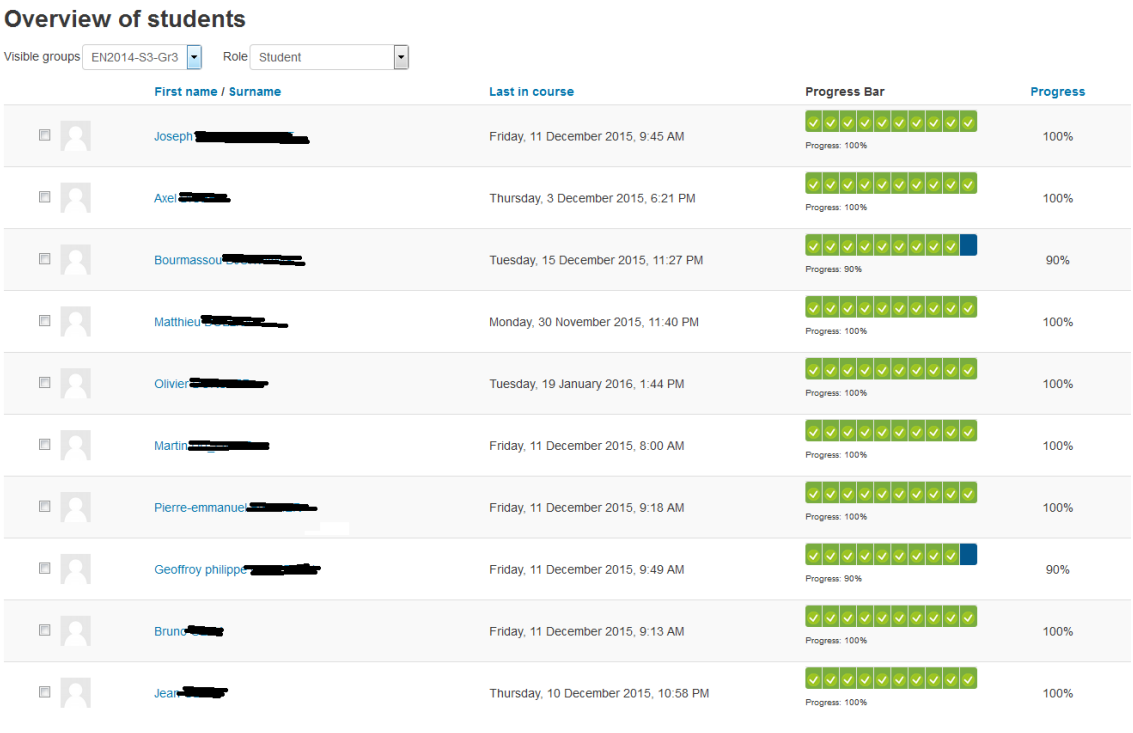
5 MSNBC Pearl Harbor Experience: http://www.msnbc.msn.com/id/29055379

6 The National Geographic: http://www.nationalgeographic.com/pearlharbor/ax/frameset.html

(figure 3). Students know that on failure to complete the work, they would be sent to their rooms to complete the work before they can join the group.

The in-class session, is not a history lecture per se, but rather a hands-on workshop, in which students are required to exert a critical mind, based on the evidence available to them, collaboratively find the answer to a question, and then explain it to their peers. During the in-class sessions, students are required to work in pairs, or groups of 3. Each group is given a famous "story" about Pearl Harbor. Each of these stories is a conspiracy theory, in one way or another. The task given to them is to decide whether this story is a historical fact, or a historical myth. To achieve this, they must use their pre-acquired factual knowledge about the Pearl Harbor raid, in combination with the analysis of primary sources, historical documents made available to them in the course's booklet (Figure 4).

Fig 3: Monitoring of online work



During the second half of the workshop, after having been informed that the questions presented by each group are in fact very similar to those in the final exam (which boosts attention, and encourages questions from the audience), each group of students, having become the "experts" on their designated topic, presents their findings to the class, explaining what their opinion is, as

well as the arguments to support their choice. They also answer any questions which their shipmates may have, which can be complemented by the teacher, should any important information be overlooked.

Discussion

Teacher competency

Teacher competency is essential in the success of a CLIL course. MATTIOLI & ROBIN [25] have shown that if the level of fluency in English is not sufficient (or perceived as such) instructors will tire out quickly, as the effort required (to translate the course material) will be too hard to overcome. As they have shown, even when assisted by a linguist for the preparation of the course, these teachers will generally not repeat the experiment after a first or second experience.

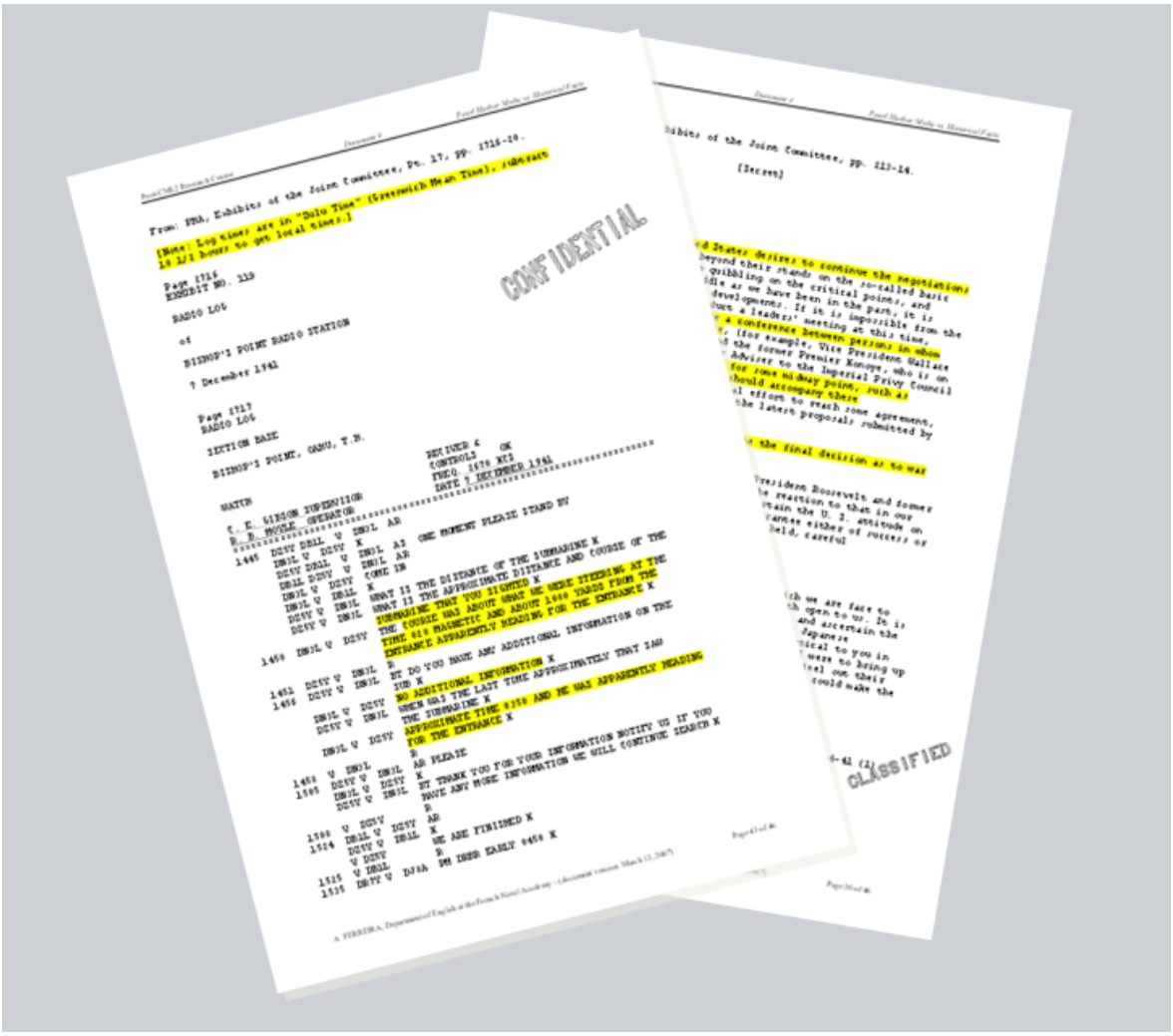
What is more, as we have seen, the result (as far as language is concerned) will likely differ significantly. While language teachers who volunteer to teach another subject (if they believe they are competent enough) will continue to correct the language of the students in doing so, and plan language-specific tasks within the teaching material, non-native technical specialists teaching in English often feel they do not master the language enough to correct students on *strictly linguistic* grounds, be they grammatical, phonetic or even (to a lesser extent) lexical. This, research suggests, often leads to no language correction being made at all. Similarly, if not trained in language teaching, native content specialists will often not make any corrections provided the language is good enough to be understood [25].

What is more, non-linguist teachers will often not plan any language-specific tasks within the course, and/or not correct mistakes of a grammatical or phonetic nature. One possible way to reduce this phenomenon may be to require a language proficiency certificate at C1 level or above[7] for any teacher/instructor required to teach in English (or another language), although this may not suffice. Another possible way to counter this may be to train subject matter experts in some form of TESOL[8].

7 Common European Framework of Reference for Languages (CEFRL)

8 TESOL: Teaching English to Speakers of Other Languages

Fig 4: Primary sources to be used by students



Lack of language focus

As LASAGABASTER & DOIZ [22] explain, students often believe that language learning happens when the target language is used and learners are exposed to it as much as possible. In other words, language learning is strongly associated with doing [20] and using the target language is one of the characteristics of CLIL, which is in general an argument in favor of student commitment to CLIL courses. In practice, it is not uncommon for language-learning goals not to be explicitly targeted in CLIL [12], with the notable exception of the teaching of explicit terminology (done in general with lexical lists). The reasons for this are multifarious.

Some students, for example, will claim that it is more important to use the language than to be correct [9], arguing that if a sentence is good enough to be understood, then it is good enough. In a 3-year-long longitudinal study, LASAGABASTER & DOIZ [22] have shown that although learners attach importance to all aspects of language learning in CLIL courses, they attach more importance to vocabulary and pronunciation, than to grammar, even if this tended to become less true with older and more competent learners. When asked to evaluate the benefits of CLIL, students mention an increase of their self-confidence and a decrease in their inhibition to speak the L2, well before the lexical and grammatical benefits [13].

Similarly, the perception teachers have of CLIL courses may have a comparable effect: VAN DER WALT [30] has posited that some instructors may genuinely believe that learners will acquire fluency simply "by immersion", i.e. by attending classes in the target language. Other teachers will refrain from a specific focus on grammatical issues, for example, because they may view CLIL lessons as a safe learning space in which students can experiment with the target language without a fear of being graded ([32], quoted in [22]). As a consequence, most teachers and students will agree that CLIL and EFL or ESP complement each other: while the former one will provide an opportunity for more exposure and practice of the language, the latter two will focus on more specific language issues, such as pronunciation, grammar, tenses, link words, etc. In short, as [20] put it: in this understanding of CLIL, "success is not defined as being proven to be better at English, but to *feel* better about speaking English".

Likes and dislikes

Recent studies have shown that students generally appreciate the fact that CLIL lessons seem to be prepared with more care than regular language lessons, and that teachers make an extra effort to make the material accessible to them in the L2 ([13] ; see also [23).

More specifically, students generally prefer activities which require greater involvement and personal participation, as well as activities which require more peer interaction and collaborative learning ([9]; see also [16]), than those which are centered on strictly linguistic correction issues, grammar being the least enjoyed of all types of tasks.

It is also worth noting that students dislike formal oral presentations to a whole class, and prefer to present to a smaller group centered around a table, even if this becomes less true as they grow older and better at L2 [22].

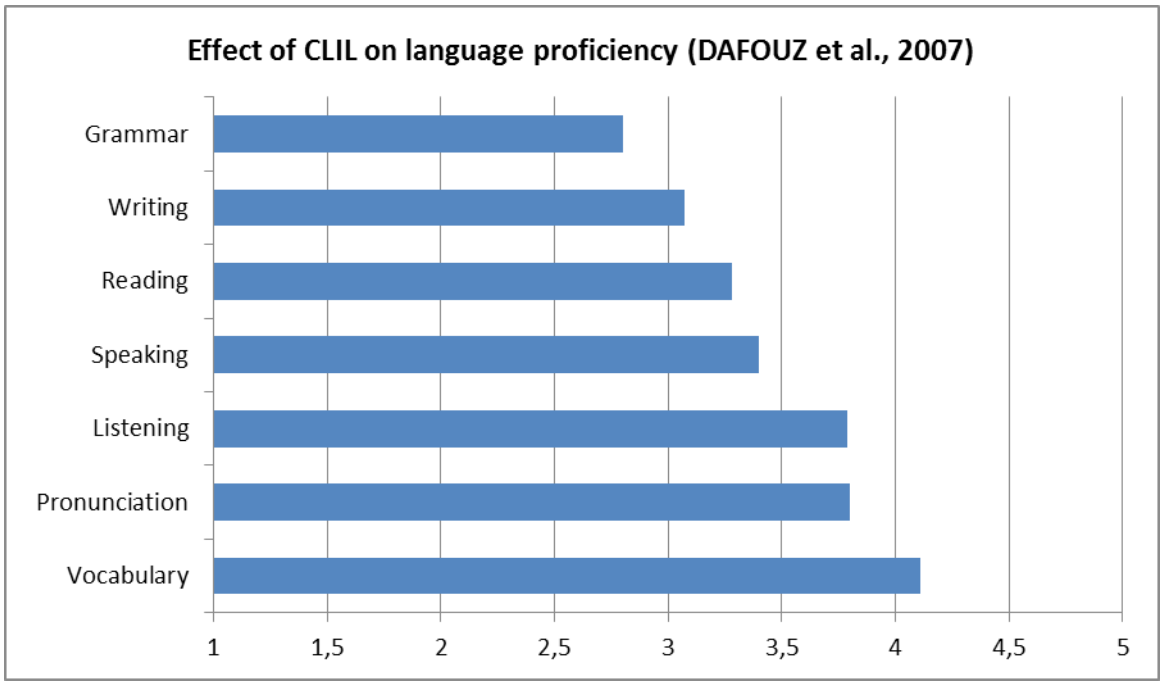
The efficiency of CLIL?

Concerning students' self-evaluation of the benefits of CLIL, it should be noted that, although learners generally think that their L2 has improved, they also regret that it has not improved as much as they expected or hoped. In a recent study, university students were asked to assess the effect of CLIL on their language proficiency, on a five point scale (data from [11], quoted in [22]; see figure 5). The study showed that grammar is the language component on which CLIL is believed to have the least significant effect, while vocabulary and oral skills (pronunciation, listening and speaking) are believed to be most improved by CLIL.

Research on the efficiency of CLIL in a European context has shown improved language competency ([12]; see also [15]). This is in particular true regarding listening and speaking skills [26] as well as vocabulary acquisition ([17] and [5]). However, it is not clear whether the improvement is caused by the dual focus of CLIL itself or merely by the increased exposure to the L2 [1]. Indeed, it is arguable that if learners were given more hours of EFL/ESL classes, the improvement would be similar to that attributed to CLIL. Some of the improved achievements may also be attributed to the fact that students are often selected to participate to CLIL courses (with a minimum competency level as prerequisite), and generally motivated, which may contribute to maximizing learning [4].

In any case, we will side with the defenders of the opinion according to which L2 learning should not be appraised only with the results of standardized tests. Students' self-perception of their progress, and the pleasure of using the L2 in participating to learning activities which are not focused on language should also be considered, since motivation significantly influences L2 acquisition [9].

Fig 5: Effect of CLIL on language proficiency (self-assessment, on a five-point scale, 1 to 5)



Conclusion

This paper has presented CLIL, and described one possible implementation of CLIL in a General Maritime English (GME) context. Lastly, we have discussed a number of issues, namely:

The question of teachers' language competency, and of its consequences on a possible lack of language focus: this, we posit, should not be regarded as an issue, since we argue that language competency should not be the main objective of CLIL classes, which should rather aim at lowering student inhibition in using the L2. Language should nonetheless be a focal point, and feedback on all aspects of language (lexical, grammatical, phonetic, etc.) should be provided throughout the course.

- The question of what types of activities learners like to do in CLIL classes: since the main objective of CLIL should not be put on language, learning tasks of a more communicative, co-constructive and collaborative nature should be emphasized. Formal

oral presentations, which counter what we see as the main objective of CLIL classes (disinhibition) by raising students' anxiety levels, should be avoided.

- The question of efficiency of CLIL, which we believe should not be defined as measurable learning outcomes only, but also as students' pleasure (or at least no displeasure) in using the L2. This does not, however mean that language should not be assessed. It should, but we argue that the correctness of the language should not be the main criterion for assessment.

Is CLIL for every learner? Probably not. If the students' level of competency in L2 is too low, the cognitive load caused by understanding the material will prevent them from attaining any of the two objectives of a CLIL course. Thus, although students generally mention the increase in hours spent communicating in English as beneficial, and generally believe it had a positive effect on their capacity to present in English ([14] and [32]), our own experience would lead us to recommend CLIL only with students at or above CEFRL B1 level, with B2 designated as the optimal level for maximizing benefits in terms of language fluency.

Lastly, we would like to underline the fact that we do not believe CLIL can in any way replace ESL, and much less even ESP, in particular in the case of Specialized Maritime English (SME). This approach could play a supporting role, but can in no way replace a proper ME teacher teaching a proper SME/GME course. Much more efficient would be a "twinning approach" whereby ME teachers work with teachers of technical subjects to assist them in teaching in English, while technical specialists contribute to the continuous "marination" of ME teachers [6].

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English as a medium of instruction at MET institutions – a case study from Chalmers

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Abstract

The Master Mariner programme at Chalmers University of Technology in Gothenburg, Sweden, aims to integrate all the teaching of Maritime English progressively, in different technical courses. As part of this reformation, two courses in bridge operation have been run in English as a pilot study, to assess methods and results of implementing English ad a medium of instruction (EMI). Results show that having EMI in these courses has not affected students' course results, and interviews with teachers and students point out valuable strengths in this type of teaching. Questions are also raised about long-term solutions and improvements. Students show an interest in integrating Maritime English terminology as early as possible in their training, even in courses taught in their native language. Teachers in turn reflect upon their own cross-curricular competence and call on collaboration to enable joint assessment of language proficiency and technical content expertise. The study suggests that EMI is a way forward for the teaching of Maritime English, but there is a need for cross curricular collaboration to raise student awareness of content and language interdependence and to enable teachers to jointly assess both knowledge of content and language skills.

keywords*: English, CLIL, master mariner*

Introduction

The Master Mariner programme at Chalmers has undergone extensive changes during 2014-2016 based on a SWOT analysis so that prospective officers will be attractive on the labour market. This analysis identified high proficiency in English communication, above STCW – level, as a necessary skill for premium officers in 2025, for an integrated worldwide labour market on board vessels. One example to support this is that Swedish Stena Line has made English compulsory on all their ferries, regardless of the route. The CEO of all maritime activities in the Stena group, Carl-Johan Hagman, sees in the near future one common labour market for officers, with no national borders (Shipping podcast with Carl Johan Hagman, http://shippingpodcast.com). Consequently, the new Master Mariner programme at Chalmers aims to implement English as the working language for the studies with the following learning goals:

- "To raise cadets' employability within international shipping, at least one year of studies is given in English, to improve students' language abilities and to enable international student and teacher exchange"

- "Students' ability to work in groups and communicate, both in Swedish and in English, is developed through cross-curricular integration of technical content courses with communication courses. There is a clear progression in the development of communicative skills in the programme."

To better prepare the development of these goals in the programme, two bachelor level courses have been taught in English during the spring of 2015 and 2016, as a pilot study. Both courses had previously been taught in Swedish and no other changes were made apart from the teaching language. The main intention of the pilot study was that if these two courses seemed to function with good results, other courses would follow suit and successfully be given in English.

The courses chosen were Advanced Ship Operations and Bridge Work, both of them taught during the spring term in the third and fourth year of studies. These were selected for three key reasons: the teachers themselves were open to the idea of teaching in English; the course material was already primarily in English; and these were courses which would most likely be part of an exchange programme with other universities.

The changes made for this project were as follows:

1. The teaching materials of the courses were changed to English
2. The teaching language was changed to English
3. Random observations of teaching activities were performed by language teachers
4. Student course evaluations of both courses were completed
5. Interviews were done with both teachers and selected students
6. Student results were assessed, and compared to previous years when the courses were taught in Swedish.

This article discusses the results of the above, with a particular focus on the teacher perspective. The following questions are therefore addressed:

1. Were the student results affected by the change of language to English?
2. Were the course evaluations affected by the change of language?
3. How did the teachers feel about the change of language?

The outline of the article is as follows. First, a theoretical background will be given, followed by a description of both courses. The research questions above will then be accounted for and discussed in the results section. The results section will also give an account for some of the student comments received during interviews.

Theoretical background

English as a Medium of Instruction (EMI) as a phenomenon in higher education is becoming more widespread throughout the world [1, 2] In Europe, the number of English taught programmes (ETPs) has increased tenfold in the last ten years, from around 600 in 2002 to over 6000 in 2013 [3, 4]. Of these, Scandinavia features significantly. In the top ten countries offering ETPs in Europe, four of them are in Scandinavia, in terms of the percentage of institutions offering ETPs, the number of programmes taught in English and the enrolment of students [2].

The reasons for this increase are many but the key motivations given by many universities are to attract foreign students, to improve international competences of domestic students and to sharpen the international profile of the institution [2]. In our case, these are similar priorities. In terms of improving international competences, language improvement is an implicit goal, in that

students will improve their language skills through exposure [19]. In theories of second language learning, this can be equated to sociocultural theory. In this theory, learning is scaffolded by a more experienced person, whether this is a peer or a teacher [5, 6]. Through this interaction, the student reaches what Vygotsky called the Zone of Proximal Development, which is a model of developmental progress, where the less experienced learner learns from the more experienced until the former is able to carry out the task unassisted.

However, there can be a number of challenges with EMI as well. In terms of teaching and learning, these can include inadequate language skills of both students and teachers; a perceived threat to cultural identity; unwillingness of local staff to teach through English; the lack of availability of Anglophone subject specialists; inadequate proficiency of international students; lack of interest from local students; loss of confidence among local students; lack of cultural integration of international students and uniformity and availability of teaching materials [7]. In Scandinavia, studies have shown challenges for students and teachers in expressing and explaining ideas and concepts in the classroom and reduced interaction. Both teaching and learning can require more time [8-10].

In our case there was also concern about language proficiency and that changing the language in the classroom from Swedish to English would result in lower grades and affect course evaluations. Swedish students need to have a level equivalent to B2 in English (CEFR) to study at the university but in practice this level can vary largely between individuals. Similarly, not all teachers are comfortable with the idea of teaching in English, especially since all the students are Swedish at the present time, though the expectation is that exchange students will be joining the group. It was therefore important for the courses to be taught by teachers who feel comfortable teaching in English.

Using EMI takes the programme a step closer to the objective of implementing the concept of twinning or CLIL (Content and Language Integrated Learning) in teaching and learning activities, which is the focus of the programme development. Twinning is defined as cross-curricular collaboration between Maritime English teachers and technical content teachers, a type of "tandem teamwork" anticipated to ensure credibility and quality of trainers' content and language skills [11]. The European Commission's Thematic Network on Maritime Education, Training and Mobility of Seafarers suggests that language teachers could receive support from technical content teachers, and vice versa, when assessing cadets' language skills. This is in line with the recently revised Model Course 3.17 for Maritime English which divides ME instruction into 1)

General Maritime English where all-purpose language proficiency remains the focus, and 2) Specific Maritime English where the language ceases to be the real content of teaching, and simply becomes a medium of instruction. This suggests that the implementation of Maritime English as a medium of instruction into content-based teaching is a solution to optimize training, learning and assessment.

Description of pilot courses

In this section, the two pilot courses are described, including the course aim, contents and assessment.

Course description – Advanced ship operations

This course was designed to develop skills for the offshore sector, due to increased interest from students and industry. The offshore sector is quite challenging with regard to specific operations, concepts, vessel design, training and HSE (Health, Safety, Environment) requirements compared to other shipping industries. As there was no such course available earlier in the programme, this course was developed with specific contents to provide a better understanding for the offshore sector, and to prepare the students for future assignments of the same.

The aim with the course is to give the students an introduction to the offshore segment in relation to different vessels/installations, working practices, different types of operations, HSE, ice operations and DP (Dynamic Positioning). This also aims to be a foundation for the students to develop in and eventually contribute to safer operations offshore, themselves. As the main working language and much of the terminology is in English in the offshore sector, it is highly relevant to deliver this course in English. Teaching methodologies are mainly lectures and practical ship handling in the bridge simulators. The course is assessed through a written assignment based on an analysis of the Bourbon Dolphin accident [15] from an ISM code perspective. The assignment is drafted in English.

Course content

Part 1 - General introduction to the offshore sector with structure, the design and description of the different types of vessels, operations and installations. A general description of different regulatory frameworks and guidelines relevant for the sector

Part 2 - HSE (Health, safety and environment) with focus on human factors, incident analysis, risk management and the concept of safe operations in the industry

Part 3 - Operations and maneuvers with basic knowledge about the DP system, the use of different propulsion systems with planning and maneuvers to and from offshore installations

Part 4 – Arctic offshore operations with focus on ice management and ice navigation.

Part 5 - Focus on future developments and the working market

Course description – Bridge Work

Working as a ship officer in a bridge team is a complex undertaking with high risks [18]. In order to handle this well, the mariner needs, apart from technical competences, adaptability to handle emergent uncertainty in an operational context. The course Bridge work is designed to be a synthesis of the STCW competence elements on operational and management level concerning both navigation and manoeuvring, as well as leadership on the bridge.

The course is divided into a series of lectures coupled with extensive preparations that aim to provide a deeper understanding of the skills that are trained through simulator exercises.

The learning objectives of the course are:

- Understand complex traffic situations at sea and act properly complying with the rules of the road;
- Handle situations where critical equipment is displaying ambiguous information or is malfunctioning;
- Take advantage of the benefits of working in a bridge team and in cooperation with pilots/VTS;
- Understand and apply the rules and procedures for search and rescue operations.

The learning objectives have a technical and non-technical skill component e.g. training how to handle a system that is malfunctioning involves knowing what to do with the actual system but also training in decision making and understanding if and when is the right time to take any action. In the simulator students are therefore both trained and assessed for technical and non-technical skills, i.e. their ability to technically assess an actual situation, to make a decision on how to proceed, and to convey that decision to the bridge team.

The students are organized in bridge teams of three individuals, who collaborate throughout the course. While preparing (ten) specifically designed simulator exercises they encounter the challenges of both creating checklists and generating procedures that are usable in an operational context. Usability means here a correct use of terminology in English, understandable language and good design. These preparations are meant to trigger discussion and reflection upon the pros and cons of the procedure-based shipping industry; thus an understanding of the system's complexity is established.

Doing all the preparations in English, e.g. voyage planning and creation of arrival in port check lists, makes English a natural part of the teaching setting, and also when it comes to communicating within the bridge team or with actors such as VTS or other vessels.

Communication is one of the focal points in the course as all operations on the bridge, such as working with pilots and VTS, and Search and Rescue, relate closely to language proficiency and conditions effective resource management and decision making skills.

Method

This section describes how the results and evaluations of the courses were analysed and how interviews and observations were carried out.

In order to establish the effect of the change of language on the results of the courses, the student results over the last three years for Advanced Ship Operations were compared using statistical software (SPSS). This course was chosen as it has a graded component.

The course Advanced ships operations is assessed with Fail, 3,4,5 where 5 is the highest grade awarded. Grades from the years 2014-2016 (2014 taught in Swedish) for both courses have been analysed in SPSS where the data is handled as ordinal data, and the grade Fail is given the

value 1. The null hypothesis based on the SPSS analysis is that ratings are not affected by the transition to teaching in English, in either of the courses.

Focus group interviews were also performed, both with lecturers and with students. For lecturers, all writers of this paper were involved in voice recorded semi-structured interviews. The students all received a mail invitation to a focus group interview regarding the course Advanced ship operations year 2015. Five self-recruited students out of a class of twenty-six, participated in the focus group. The interview was voice recorded.

Results

In the results section, we return to our three research questions and examine them in the light of the course results, evaluations, interviews and observations that were carried out. The data examines results before the change of language (2014) and compares these with data from after the change (2015 and 2016).

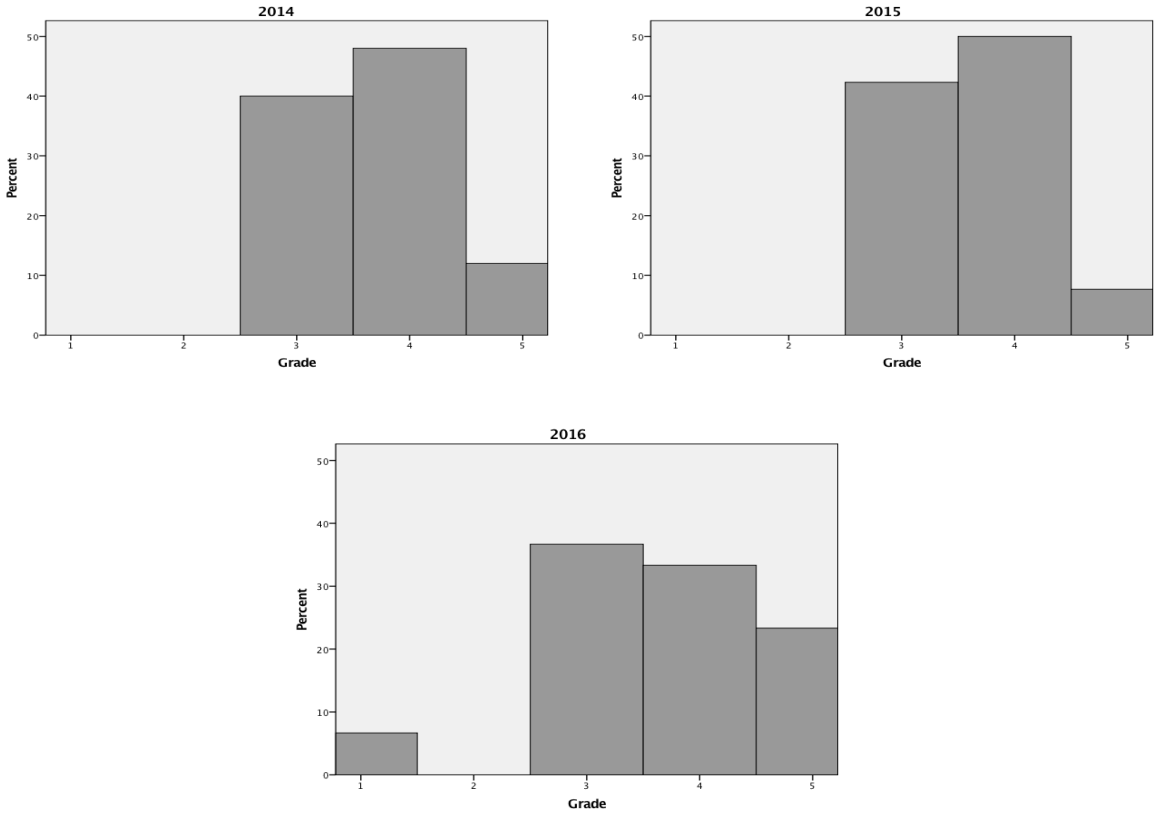
1. Were the student results affected by the change of language to English?

In figure 1 below, the percentage is shown related to the distribution of grades in the years 2014-2016 for the course Advanced Ship Operations.

In the analysis, we see that the first year of the transition to English 2014 to 2015 there is no difference in the grades between the two years. For 2016, there is a tendency that students move from grade 4 to 5, but this difference is not statistically significant.

A statistical comparison is made between the three years to see if English as the medium of instruction has influenced the grades in the course. The null hypothesis is that there is no difference between the groups. Figures on the probability 0.912 make it likely that English has not affected the grade and the examination of the course.

fig 1: Examination results from years 2014-2016 in the course Advanced Ship Operations



2. Were the course evaluations affected by the change of language?

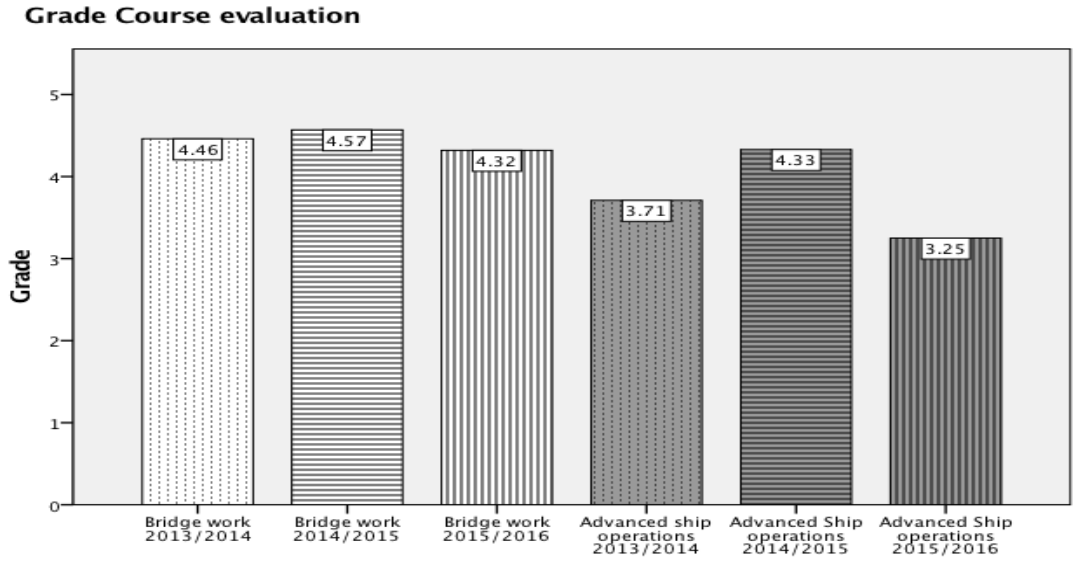
The second question refers to the course evaluations. The final question of the evaluation is focused on here, as it asks the students how satisfied they are with the course as a whole.

For this question, the students select a number between 1 to 5 where 1 is very poor and 5 is excellent. The results of these course evaluations are shown in figure 2.

It seems that in the Bridge work course evaluations were marginally affected by the transition to English. There is more variation in the teaching activities of Advanced ship operations which would call for further research and for more specific questions over more years of study to be able to clarify reasons for these changes. However, one theory can be that Bridge work includes

English by definition as most activities are carried out on the bridge where the operating language is naturally expected to be English. Advanced ship operations is a course which could, theoretically, be taught in Swedish as long as all participants are native speakers of Swedish, even if the course literature is in English. Students may therefore have difficulties in understanding the reasons why Advanced ship operations is taught in English.

fig 2: Results of course evaluation for the Bridge Work and Advanced Ship Operations courses. The courses were given in English from 2015



In interviews, students explained that it is not as convenient to speak English as Swedish in class, and that should be improved as they expect to depend on English skills in their professional roles. EMI can provide better conditions to develop good communication skills in English, particularly as students assume they will become more and more comfortable with English if it is the natural teaching language. Students suggest that English should be twinned with technical content courses from the start of the programme to create a 'habit' around speaking in English. There should be communication modules in English in all courses, and these can initially focus on terminology and standard phrases, but must develop communication skills progressively through the programme so that students are eventually properly prepared for the communication situations related to the profession. English should come naturally into the programme and there must be ongoing and consistent communication elements in English to meet programme goals. Overall the courses were considered interesting and should be prioritized.

3. How did the teachers feel about the change of language?

The teachers commented on positive aspects of the change, suggestions for future improvement as well as challenges. Positive aspects included the fact that this was felt to be a natural training environment for the students and that the students saw the importance and relevance of using English as their working language in the courses.

A suggestion for the future was to develop constructively aligned activities, outcomes and assessment that include language skills. It was also commented that progression of these activities should be developed from year to year so that the students' English proficiency is built up over a period of time. Teaching in English was also felt to generate an artificial environment when all participants are Swedish native speakers, but since exchange students will soon join these courses, this will not be such an issue.

Teachers felt challenged in being consistent in their use of English throughout the course, as students could ask questions in Swedish, for example. Another challenge was the dilemma between grading papers and not correcting or grading language. It was also found that students were quieter during class and less likely to ask questions, something also noted in Airey's study [8]. In both courses, students were allowed to ask questions in Swedish if they wished but English was encouraged and answers were provided in English.

In terms of use of English, both teachers were proficient users of English but discovered that there were differences between being familiar with radio communication phrases, or using English as the working language on the bridge, and lecturing in English, when it is important to find the right words, which could be slow at times. There is also the question of quality when delivering a lecture, and how to know that the lecture has the same quality as if given in Swedish. In terms of grading papers, situations arose where it was difficult to grade a paper due to poor language proficiency, and as a content teacher, it was difficult to elaborate on language issues.

Conclusion

Master Mariner students will work in an environment where fluency and good communication in English are essential. Increased exposure to English in their education can contribute to this process as long as the quality of the education is not affected.

The results after this pilot study at Chalmers show no significant change in quality compared to previous years taught in Swedish. Student evaluations and interviews were positive to the change of language and suggest that the students are able to deal with technical content taught in English. Students in interviews go one step further and recommend introducing EMI progressively already from the first course, in year 1, as to better prepare for more complicated technical content towards the end of their education. The teachers' findings are that the experience on the whole was positive though challenging in some respects. Teaching in English takes more time and requires more planning and it is difficult to be consistent in use of English as some students can be uncomfortable or less sure of themselves, thus quieter and less likely to ask questions. It is also a challenge not to take language into consideration in the grading process, when language is poor. This suggests that technical content and language teachers could work together for a more holistic teaching/learning approach.

Overall, this study concludes that courses given in English are worth pursuing, especially since the classroom and the onboard environment will become more mixed in the future. However, this needs to be done with care. Both teachers and students need support if the course is to work as well as in the native language, and integrated/twinned courses are suggested as a solution to maintain teaching competence for both technical content and language. Teachers need to feel that they can complement each other with the necessary tools to provide the same course quality in English as in Swedish. In addition, this setting provides optimal conditions to better assess content and language skills in tandem [12] if content and language teachers can collaborate across the curricula [13]. Content and Language Integrated Learning [14, 16] is an objective in the programme development process at Chalmers, and the implementation of EMI has now shown that cross curricular collaboration is not only obviously needed but also expected by both teachers and students.

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A Study of the Intelligibility, Comprehensibility and Interpretability of Standard Marine Communication Phrases as Perceived by Chinese Mariners

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Abstract

Worldwide, mariners use a variety of English as an International Language known Maritime English regardless of the first language spoken by the crew or port in which they enter. English knowledge and ability is therefore critical to a mariner's livelihood at sea and is also mandated by the International Maritime Organization. The ability to understand and be understood is paramount to safety at sea. This study investigated which accents of English a subset of Chinese mariners found easy or difficult to understand. The data from 39 Chinese mariners who listened to 8 Standard Marine Communications phrases was analyzed. The phrases were spoken in English by native speakers of Japanese, Russian, Chinese, and English. The participants provided verbatim responses followed by their assessment of the speakers' intelligibility and accent. Results indicated that participant position on board the vessel had a statistically significant effect on the intelligibility rating of the phrase heard and the overall understandability assessed of the speaker's accent. Moreover, participants reported that the phrases were deck commands. For deck officers who participated in the study, they phrases were easy to understand, for engineers, they were more difficult. These findings suggest that within the field of Martine English, further specification of English training is warranted and necessary to provide all mariners with authentic language relevant to their jobs. Initial Maritime English instruction at Maritime Education and Training (MET) institutions must include reading, writing, listening, and speaking which address the spectrum of scenarios which cadets may find themselves. Follow-on English classes for mariners beyond the academies or maritime universities must necessarily be situated in the context of the mariner and be flexible enough to adjust to the needs of the mariners. Finally, assessment of the mariner's Maritime English language abilities must also strive to test authentic use of the language as indicated by the position.

keywords: *intelligibility study, Maritime English, SMCP, accents*

Introduction

The shipping industry transports over 90% of the world's trade with an international fleet of merchant vessels and an international crew of 1.2 million mariners [1], 2012). Within this vast global network, English has been formally established as the lingua franca for both seaborne mariners and shore-based personnel as the mode of communication regardless of nationality, first language, or location. In recent years, increased attention has been paid to this language of the sea, known generally as "Maritime English", as most accidents at sea are attributed to the human element where English plays a critical role. The ability of mariners to effectively communicate with each other is vital for the preservation of crew, cargo, vessels, and for minimizing negative impacts on the environment:

> Successful communication at sea is directly linked to clear and complete delivery and receipt of the target message between interlocutors. It can be said that the speaker's effective delivery of their intended message, and the listener's precise decoding and accurate understanding are the keys to successful maritime communications [2].

Seafarers from non-native English-speaking countries constitute the majority of manpower in the maritime industry with approximately 50% of the officers and 51% of the ratings, and are employed from Asia and Eastern Europe [3]. Due to the increase in mariners from these regions, particularly from China, the Philippines, and India, non-native speakers (NNSs) are more likely to encounter other NNSs of English rather than native speakers (NSs);[3, 4, 5], and therefore, must be able to understand various accents of English. Because of the increasing role that China and Chinese mariners play on the world's seas, this study evaluated the ability of Chinese mariners to understand different English accents.

The motivation for this research stems from an adherence to the "intelligibility principle" [6] , a belief that effective communication is the goal of any language encounter and can be achieved regardless of one's accent. Effective communication can be explained as producing an utterance which is understood by the interlocutor and "is not solely speaker- or listener-centered, but is interactional between speaker and listener" [7]. The crux of any successful communicative event in the maritime domain is, therefore, the responsibility of both interlocutors: "Each carries the responsibility to be understood; each must make an effort to understand" [8].

I conducted an intelligibility, comprehensibility and interpretability study (hereafter referred to as an intelligibility study), in which 41 Chinese mariners listened to eight Standard Marine Communication Phrases (SMCP), and provided feedback regarding the intelligibility of the speaker and their understanding of the phrase. These phrases were spoken in English by native speakers of Chinese, Russian, Japanese and English. Participants repeated the phrase verbatim as a measure of their intelligibility of the phrase, and answered questions regarding their perception of the speaker and their comprehension of the sentence. The verbatim response enabled me to determine which phrases or words were unintelligible to the participant and identify areas of reduced intelligibility [9]. I analyzed areas of reduced intelligibility to determine what features of the unintelligible words contributed to comprehension difficulties. Finally, I analyzed the intelligibility and comprehensibility/accent rating of each phrase with respect to the participants' education level, years working in the marine industry, and position on board the vessel to determine the statistical significance of these variables on the participant ratings. The results indicated that the participant's position on board the vessel, either as a deck or engineer officer, had a statistically significant effect on their intelligibility and comprehensibility/accent ratings of the Standard Marine Communications Phrases to which they listened.

Intelligibility, Comprehensibility, Interpretability

There is some consensus that "understanding" can be broken into three distinct components, namely: intelligibility, comprehensibility, and interpretability. For the purposes of this study, I used Smith and Nelson's definitions [10]:

Intelligibility: word/utterance recognition;
Comprehensibility: word/utterance meaning (locutionary force)
Interpretability: meaning behind word/utterance (illocutionary force)

While it is widely acknowledged that in order to safely navigate and operate vessels in international waters mariners must be able to communicate essential information clearly, concisely, and unambiguously to other mariners, how one achieves clear, concise and unambiguous communication is a moveable target. This study focuses on the listener and their understanding of a set of standard phrases. The goal was to identify factors contributing to the perception of unclear and ambiguous speech by Chinese listeners and what other factors may bear on understanding.

My research addressed the following questions:

1. For Chinese mariners, which accents of English are easiest or most difficult to understand when listening to Standard Marine Communications Phrases and why? How do the participants characterize their ease or difficulty in understanding?
2. What features of the stimuli made the speech easy or difficult for the Chinese mariner?
3. Does education level, experience in the maritime industry, position on board affect the Chinese mariner's ability to understand NNS of English?

Methodology

I wanted to explore the intelligibility, comprehensibility and interpretability of SMCP phrases as understood by Chinese Mariners both quantitatively and qualitatively. I chose a mixed-method approach as it allowed me to collect verbatim responses from mariners working in the industry and measure the participant's initial understanding of the phrase [11]. Furthermore, this approach provided the context to explore, through open-ended questions and participants' ratings, how participants perceived the accent. It provided opportunity for them to explain to me what about the phrases they did or did not understand. Collection methods used included a "Language Background Questionnaire" which included questions about their language use and job or position on board the vessel. Participants' responded to hearing eight SMCP phrases with an oral restatement of what they heard. This session was followed by a discussion of what the phrase meant as well as the participants' ratings of their understanding of the speaker and of the speaker's accent. Additionally, I assessed the participants' understanding based on their repetition of the phrase.

Stimuli: The stimuli used for the listening tests were extracted from the Maritime English Corpus[1], an audio recorded collection of seven sets of maritime messages [12] These eight phrases extracted from the corpus recordings were chosen due to the familiarity that participants would have with the lexis, semantics and grammar. Because all my participants were mariners, I expected that in accordance with the STCW requirements for English language use on board vessels, they would have adequate general Maritime English language knowledge to understand

1 The corpus was compiled by Dr. Takagi and can be found at:
http://www2.kaiyodai.ac.jp/~takagi/pweb/wme.htm.

the phrases. My participants would be able to understand the phrases because of their vocational or university studies of Maritime English as well as their experience on board vessels. The phrases used are listed in Table 1.

table 1: SMCP phrases used as stimuli

No	Sentence	Word Length	No. of Syllables
1	**My last port of call was PLACE NAME.** (Place name varied based on L1 of Speaker: Chinese 1 – Dalian, Japanese 1- Osaka, Russian 1- St. Petersburg, English (U.S) L1 - Castine)	7-8	7-10
2	**Make fast the tug on the starboard quarter.**	8	10
3	**Rig the pilot ladder one meter above water.**	8	13
4	**My present course is one three five (135) degrees**.	8	10
5	**We will use the starboard anchor**.	6	8
6	**The pilot boat is approaching**.	5	8
7	**Put seven shackles in the water.**	6	9
8	**The TCPA is thirteen (13) minutes.** (each letter of "TCPA" (Time to Closest Point of Approach), is said as an individual word)	8	10

Speakers of Stimuli. I selected eight male speakers with L1s of Chinese, Russian, Japanese, and English. Two speakers from each L1 were selected to average out the effects of variability between the speakers [13]. All speakers were male to control for gender. Russian speakers were selected because of a study which found that Russian and Chinese NNS were the most difficult to understand for Japanese maritime industry workers [14]. I wanted to determine whether Chinese NNS experienced misunderstandings in the same way. Additionally, Chinese speakers were selected to determine the influence of accent familiarity or "matched interlanguage speech intelligibility benefit" [15]. The concept of "matched interlanguage speech intelligibility benefit" suggests that NNS who share a common L1have similar speech production and perception in the target language, Due to the influence of the shared phonetic and phonological knowledge of the L1, a listener from the same language background as the speaker will find the speaker to be more intelligible than NS or other NNS who do not share their L1. The native speakers were selected as a baseline for a 'standard' English dialect [16].

Participants: Participants were all Chinese nationals born, raised and currently living in China. They ranged in age from 22-48 years old (mean = 31 years) and had differing ranks and positions on board the vessel, including 15 participants from the Engineering department, and 26 participants from the Deck department. Two participants had served as ratings; their results were exclude from the analysis and is discussed more in the next section. Two participants were pre-service cadets who had not yet been to sea but were projected to go aboard in the coming year; the remaining 37 participants had worked in the maritime industry from 1-25 years, (mean=8.5 years). Based on IMO requirements, all were required to attain an adequate level of English for their job onboard a merchant vessel. While the participants' level of English varied, most had studied English in formal classroom settings 7-10 years in middle school and high school, and had attended either vocational or university settings with additional English language training. In addition, most had gained English knowledge through practical experience on board the vessel.

Results

As previously mentioned, two participants had served as ratings (a Messman and Able Bodied Seaman) and I considered their backgrounds to be sufficiently different from the remaining 39 participants that I excluded their results. By excluding these two outliers, the data which I analyzed consisted of the oral responses to eight phrases from 39 participant totaling 312 phrases and the intelligibility and accent ratings of those 312 phrases. This subsection of participants included 13 engineers (33%) and 26 deck officers (67%), all of whom had been educated at a 4-year maritime university (64%) or a 3-year maritime vocational school (36%).

Research Question 1: To address the first research question, For Chinese mariners, which accents of English are easiest or most difficult to understand when listening to Standard Marine Communications Phrases and why? How do the participants characterize their ease or difficulty in understanding?, I tested the effect of the speakers L1 on the intelligibility and accent/comprehensibility ratings. The categories of Speaker L1 (Chinese, English, Japanese, and Russian), had a significant between-group effect on the intelligibility rating ($p = .009$) and comprehensibility/accent ratings ($p = 0.001$). The post hoc Mann-Whitney test showed that the Chinese L1 speakers were significantly more intelligible to the participants than the Russian

(.02)[2] and the Japanese (.03). Additionally, the post hoc test showed that the accent of the native English speakers was more comprehensible than the Japanese (.017). The Chinese accents were more comprehensible than the Japanese (.001) and Russian (.014).

During my interviews with the participants, I asked them to identify the country or first language of the speaker. I wanted to gain an understanding of whether the participants where familiar with the speaker's accent (such as by listening to radio, TV or watching movies) or had interacted with persons speaking with this accent in order to understand whether familiarity with the accent contributed to their ratings. Bent and Bradlow [15] indicated in their research that a matched interlanguage intelligibility benefit existed with their participants, as well as an 'unmatched' interlanguage intelligibility benefit. An unmatched interlanguage intelligibility benefit was a benefit gained by NNS who interact with other NNS; that is, NNS speech was perceived as easier to understand than NS speech by NNS listeners. Overall, the participants were able to accurately identify the L1 of the speaker just 22% of the time. They most accurately identified the Chinese speakers 56% of the time. Table 4 shows the percentage of accuracy with which the participants were able to identify the L1 of the speaker.

table 2: L1 of Speaker Correctly Identified by Participant

Speaker L1	Frequency	Percent
Chinese	44/78	56.4%
English	16/78	20.5%
Japanese	6/78	7.7%
Russian	3/78	3.8%

When the participants were asked to characterize the ease or difficulty they had in understanding the speakers, they most commonly answered that either the pronunciation was not clear or it was different from what they were expecting. Many participants also reported that the speakers' rate of speech was too fast or they did not know words and/or the phrases. Finally, several participants (engineers) indicated that the stimuli were deck officer commands and were not phrases that they used. In contrast, several participants (deck officers) said the opposite. The deck of-

2 SPSS v. 24 adjusted the significance values using the Bonferroni correction for multiple tests.

ficers reported that the stimuli were easy to understand because the phrases were heard or said often while on board vessels.

Research Question 2: To address the second research question, What features of the stimuli made the speech easy or difficult for the Chinese mariner?, I analyzed the verbatim responses to determine where participants had difficulty identifying the words or the phrases. The influence of the speaker L1 affecting the intelligibility of the phrase for the participant was most noticeable in the pronunciation of place names in Sentence 1. To illustrate this point, only one of nine participants who listened to the Russian speaker was able to parse [sɛnt 'piz.bɹg] as "St. Petersburg". In three phrases, the initial word(s) were unclear for the participants and because participants missed the first word(s), they were often unable to create meaning for the remaining words in the phrase. The spoken numbers within three sentences were also challenging; either numbers were replaced with other words, ("some" for "seven"), the numbers were switched ("one, five, three" for "one, three, five"), or a different number was heard, ("thirty" for "thirteen"). Finally when the Russian speaker said "starboard anchor", the /d/ in starboard was devoiced and the /t/ was co-articulated with <anchor> causing the word "tank" or "tanker" to be heard. In summary, the features of the stimuli which were difficult had to do with word position (sentence initial words), the influence of the L1 on English pronunciation (as in St. Petersburg or starboard anchor), and spoken numbers.

Research Question 3: The third research question, "Does education level, experience in the maritime industry, position on board affect the Chinese mariner's ability to understand NNS of English?" was addressed by performing a series of statistical to determine what variables in the participants background affected their intelligibility and accent/comprehensibility ratings As mentioned, the participants told me during the interview that the SMCP phrases I asked them listen to were all deck commands or statements. They indicated that their position on board the vessel impacted intelligibility, comprehensibility and interpretability of the Standard Marine Communication Phrases that they heard. To understand these phenomena more clearly, I performed a series of Kruskal-Wallis statistical tests ($p<.05$) with post-hoc Mann–Whitney to determine what variables in the participants background effected their intelligibility and accent/comprehensibility ratings as well as if the participants' position had a statistically significant effect on those ratings. All statistical tests were performed using SPSS v. 24 (IBM, 2016). I used the intelligibility and accent/comprehensibility ratings as dependent variables. For the independent variables, I used the participants' position on board the vessel (deck or engineer),

their education level (vocational or university), and the number of years in the industry to establish. I also tested the effect of the test number, the L1 of the speaker, and the sentence number. A summary of the tests ran on which independent variables and their respective significance is in Table 3.

table 3: Variables and their significance on Intelligibility Ratings

Not Statistically Significant	**Statistically Significant**
Education Level (p = 0.863)	Position on board vessel (p = .001)
Number of Years in Industry (p = .076)	Speaker L1 (p = .009)
Test # (p =.441)	Sentence number (p = 0.001)

The results indicated that the participant's position had a significant effect on the intelligibility (p = .001) and accent/comprehensibility (p = .001) ratings. The participants' education level did not have a significant effect on the overall ratings of intelligibility (p= 0.863), or the comprehension/accent rating (p= .966). Further, the distribution of intelligibility and accent/comprehensibility ratings was the same across the categories of education for each speaker L1. The participant's number of years in the maritime industry had no significant effect on the intelligibility rating (p = .076). On the other hand, the years of maritime industry experience did have significance on the accent/comprehensibility rating (p = .043).

Discussion

The purpose of this study was to investigate the intelligibility of Maritme English, more specificlaly, Standard Marine Communication Phrases by Chinese mariners. As the results suggest, many factors contributed to these ratings; however I will focus my discussion on how accent familiarity, and familiarity with topic (via position and the idea of authentic language) played a significant role in my findings. Based on my analysis, the most salient aspect of the participant's background which influenced their intelligibility and accent/comprehensibility ratings was their position on board the vessel. Education level (university or vocational) had no statistically significant effect on a participant's ability to understand the utterance; likewise, the number of years in the maritime industry had no significant effect. However, my findings did sug-

gest that familiarity with the speaker L1 (accent familiarity) as well as specific sentences (topic knowledge), did have significance.

Accent Familiarity: The first research question asks which accents for Chinese mariners were the easiest of most difficult to understand and why. Based on their ratings, the participants were best able to understand the Chinese speakers, the English speakers, Russians, and finally the Japanese, in that order. These findings support the premise that accent familiarity, or the interlanguage speech intelligibility benefit [13] played a role in a listener's ability to understand an utterance. That is, the Chinese participants were best able to understand speakers of English whose L1 was also Chinese. However, unlike the Bent and Bradlow study, the participants did not demonstrate a 'non-matched' interlanguage benefit. The accents of the Japanese and Russian were not as easily understood by the Chinese while the Chinese speakers (a 'matched' interlanguage benefit), and native speakers were more easily understood.

Regarding the reason for the ease or difficulty with which the participants understood the Chinese speakers, most commonly cited was the clarity of speech as well as knowledge of the phrases. In my study, participants were not apprised of the speaker's nationality or L1. When asked which language the speaker spoke as a native language and whether they interacted with speakers with this accent, they were highly incorrect as to the L1 of the speaker. An inaccurate characterization, of course, made their discussion mostly irrelevant of whether they interacted with someone with this accent in the past.

The exception to this statement was their identification of Chinese speakers. The participants were able to identify Chinese speakers as a native Chinese (Mandarin) speaker nearly 77% of the time (n=39) while they identified the L1 of Chinese speaker 1 only 36% of the time (n=39). This discrepancy in their identification of the L1 suggests that role of accent familiarity may not play as large a role as previously thought. In fact, as the number of NNS increase who are influenced by varieties of English other than Kachruvian inner circle varieties (American, British, Australian, Canadian, or New Zealand), 'accents' of English may also take on varieties. For instance, a Russian mariner who served aboard vessels with Indian mariners may acquire the prosodic features of the Indian variety of English and thus carry an Indian speaker accent rather than what may be termed a characteristic 'Russian' accent of English.

Topic Knowledge: As mentioned previously, the stimuli were skewed in favor of the participants who worked in the deck department. Analysis of the three most unintelligible sentences

revealed several semantic and phonetic factors that were problematic. What was most striking about the intelligibility rating of Sentence 2, "Make fast the tug on the starboard quarter", was that of the 18 verbatim responses which had a low intelligibility rating (3 or lower), 13 came from participants who were engineers, the entirety of the engineering component of my participants! The majority of the misunderstanding occurred at the beginning of the phrase suggesting that the collocation of "make fast" was not known or was not used frequently. Even though this is a common lexical phrase in Maritime English meaning 'to fasten or make tight', engineers were unable to parse this phrase from the sentence regardless of the L1 of the speaker. Not understanding this word likely hindered them in interpreting the entire phrase. Half of the participants were unable to understand any other words in the phrase except "starboard". Previous knowledge likely played a role. From the participants with intelligibility score of 5 for this sentence, a common response was that this phrase was frequently used; they had either said it every day or responded to the command often. Additional examples of areas within the phrases which caused difficulty for the participants to understand are in Table 4.

table 4: Areas of Difficulty/Ease for Participants by Sentence.

Sentence	Features affecting Ease or Difficult of Intelligibly	Implication
1. My last port of call was St. Petersburg.	Name of port	Influence of L1
2. Make fast the tug on the starboard quarter.	"Make fast"	Unknown lexical items
3. Rig the pilot ladder one meter above water.	"Rig"	Unknown lexical item
4. My present course is one three five degrees.	"one three five" (numbers dropped or reverse ordered)	Spoken numbers
5. We will use the starboard anchor.	"We will use" – (question (will we use?) versus statement) "starboard anchor" - /d/->/t/ devoicing, and assimilation of /t/ to 'anchor'	Prosodic features, intonation Influence of L1
6. The pilot boat is approaching.	33 of 39 rated 5 for intelligibility	Shortest sentence, fewest syllables

7. Put seven shackles in the water.	"seven shackles"	Unknown lexical items
8. The TCPA is 13 minutes	"TCPA"	Unknown lexical item
	"13 minutes" (13 versus 30)	Spoken numbers

Authentic Language: For the deck officers in my study, these phrases represented authentic speech stimuli. For the engineering officers, they did not. These phrases were all real-world Maritime English phrases taken from the SMCP, which would have been said or heard on the bridge of a vessel, the domain of the deck officers and deck crew. But, as Sampson and Zhao acknowledge,

> Despite the 'simplification', the number of phrases covered by SMCP is likely to be a great challenge to seafarers who are not native English speakers. In its present form, the SMCP consists of 114 pages (a total of more than 3,000 phrases) with an additional 15 pages of explanatory notes. [4]

This suggests that simply studying the SMCP or using SMCP as the basis for Maritime English instruction may not provide the learns with the authentic lexical or semantic knowledge they need in order to understand Maritime English in a real-world setting. More significantly, these phrases do not represent the 'maritime English' used by engineers on board vessels. Several participants who were engineers confirmed this sentiment as they commented that the phrases were typically not heard during the course of their work on board the vessel. Conversely, the participants who worked in the deck department said that the phrases were easy to understand because that was part of their job. Deck officers had heard, responded to the phrase, or used the phrase nearly every day. While the fact that the stimuli were skewed in favor of deck officers is certainly a drawback to my study, it does significantly highlight the role that position on board a vessel plays in how mariners are able to understand various speakers of English.

To this end, there exists a need for authentic English instruction based on the English language needs of each position on board the vessel. My stimuli were taken from phrases of the SMCP, which was drafted as codified expressions to facilitate safety and navigation in the maritime domain. This is not sufficient as the sole document to instruct engineers or other non-navigation positions on board a vessel in the English language necessary to fulfill their duties. In-

deed, the Maritime English prescribed in the SMCP is not often used, as noted by Sampson and Zhao, "Despite the attempts of the industry to impose a common language from `above', the use of Maritime English was not witnessed on any of the vessels that researchers sailed upon either in ship-shore communications or aboard vessels in the course of crew communication" [4]. Therefore, language expertise acquired by experience, or in the case of this study, the context in which the participant is situated with respect to their language use (i.e., job on board the vessel) seemed to outweigh accent familiarity. One participant remarked in response to what made the accent easy to understand:

> This is the working language so we using this language many times…. Because you are doing many times of this job so once they give you some, little bit of information, like "make fast the tug", not the full of the sentence, you can understand. (Participant interview with Holland, 2016)

Here the participant was referring to his familiarity with the lexical items as well as the experiential context which provided the 'ease' in understanding the accent. He suggested in his responses that the accent of the speaker did not make a difference once one knew the job. In fact, this sentiment was repeated by others. Another participant indicated that regardless of what was understood over the radio, he would know by situational context what needed to be done. For instance, as a vessel enters or departs port, a pilot will come on board the vessel. Deck officers and deck crew will know that as the pilot boat is approaching, the pilot ladder must be lowered so that the pilot can come aboard. As a result, Sentence 3: "Rig the pilot ladder one meter above water", could be highly unintelligible due to the speaker's pronunciation, the effect of radio transmission, or the interference from vessel operations, yet the illocutionary force of the phrase would be known. Past experience, prior knowledge of the working environment and procedures would all determine the intelligibility and comprehensibility of the phrase. One participant remarked that he need only understand one or two words and he would know what to do, suggesting that in addition to his position on board the vessel, the context in which the phrase would be made was known and recognizable.

Pedagogical Implications

In light of this study, a number of pedagogical recommendations emerge. The first is that pre-service Maritime Education Training centers (academies, universities, and vocational schools)

should incorporate a holistic English language-learning approach. This approach would not segregate English from the context of the other classes, but in fact be intertwined with the navigation and engineering courses as well as experience on board vessels. This approach to teaching Maritime English has been adopted by at least one maritime university which introduced the concept of 'twinning' English language training into specific discipline study. In the Marine Engineering Programme at Chalmers University of Technology (Gothenburg, Sweden), Maritime English instructors and Engineer instructors have designed courses which integrate and overlap the teaching and learning activities of both disciplines, They write:

> One of the greatest challenges in teaching good communication skills and what that means for a marine engineer or any seafarer, is to design content-based language learning activities which integrate Maritime English along with the requirements of the engineering profession. The design of such a curriculum supports the development of communicative skills by enabling students to recognize any given communicative dimension of their profession in a natural working environment. [17]

In their pre-service training institution, the contextualization of English language learning is beginning to take shape. However, more of this integrated, communicative approach to teaching language in context is necessary.

The recommendation of specific training by discipline or position on board the vessel is also evidenced by the IMO's Model Course for English 3.1.7 [18]. This model course divides Maritime English into two sections: General Maritime English and Specialized Maritime English. The second section aims at achieving "the effective communication competences of specific maritime duties through the application of the English language" (p. 7) and includes specific English language instruction geared towards engineering watch office among others (pp. 146-159). The model course authors also recommend that it is beneficial for students if English is incorporated into the technical maritime subjects as well as in separate English classes. (pp. 146-147). This approach to 'twinning', that is integrating the teaching of English into content based courses, as well as assessing English for mariners based on position specific skill and knowledge implies a level of maritime subject matter competency on the part of the English instructor. Maritime English instructor competency is outside the scope of this research, but has widely been addressed in previous research, [19].

Secondly, the same concept must be applied to post-service or in-service training which mariners are required to pursue. The required refresher courses for GMDSS or courses necessary to advance such as the Bridge Resource Management class should include elements of the 'twinning' concept. In so doing, instructors and students could maximize their input and takeaway from the class. Again as an example of this, the IMO's Model Course for English 3.1.7 Part 2.5 was specifically designed for GMDSS operators and focuses on the written and oral communication to transmitting or receiving information via the GMDSS system [18]. What remains to be done is to translate the 'model-course' into existing course material to enhance the English instruction at various MET institutions worldwide.

Thirdly, in assessing language skills of mariners, assessment measures must be limited either general Maritime English, or ensure that authentic material is used for all position on board the vessel.

Finally, it should be acknowledged that language learning is a process which takes time and does not end when the student leaves the classroom. Thus, life-long language learning techniques and communication skills should be taught early on in the career of marines. This includes strategies for continued vocabulary learning, as well as enhanced communication skills necessary to negotiate meaning between interlocutors. To paraphrase one participant, each vessel brings new communication challenges as the 'language' differs based on the L1 make-up of the crew. New varieties of Englishes therefore must be mastered, new words or pronunciations must be learned as the vessel hosts a continuously evolving and dynamic linguistic environment as crew sign-off and sign-on to the vessel at differing times. Exposing cadets to a variety of accents of English is therefore, a worthwhile endeavor.

Limitations and Suggestions for Future Research

Several factors limit how generalizable the results may be. This study was conducted with only a limited number of participants (n=39) from one language background, Mandarin Chinese. Therefore, while the results can be generalizable to a similar population of Chinese mariners, they are not necessarily generalizable across the whole population of mariners. Also, this study incorporated stimuli from speakers of only three L1's other than English, and a broader study using multiple NNS L1 stimuli and additional NNS L1 listeners would be worthwhile. Furthermore, this study was conducted with stimuli which were pre-recorded, not drawn from real-

world situations. Poor voice quality over radios with background noise and radio transmission interference is a significant factor in real-world communication. Using authentic radio transmissions as stimuli may provide different results, particularly among the deck officers. The effect of experience may be a significant factor with real-world communications. Finally, the subject matter of the stimuli in this study favored mariners who worked on deck over those who worked in the engine department. Limiting participants based on position would eliminate this confounding variable; however, it is apparent that studies of maritime English need to include appropriate stimuli for not only deck officers but engineering staff alike.

Conclusion

This study shows that the use of Maritime English is highly context-based, especially as to the position of the user. A reoccurring theme was the difference in intelligibility ratings between the participants who held positions in the deck department versus those who held positions in the engine room. This finding highlights that intelligibility of an utterance is a complex phenomenon that includes phonetic features of the utterance made by the speaker, as well as the ability on the part of the listener to parse the phonemes into words that are known and have meaning. The SMCP regardless of its current size, does not address the needs of all mariners; position specific language learning that is relevant and contextualized is needed. At a minimum, post-education and mid-career English classes are necessary for the mariner. These classes should be highly contextualized and streamlined for the individuals and based on the specific context in which the mariner is situated. Further research is needed in this specialized field to determine the how mariners are using English versus what is taught in Maritime Education and Training (MET) institutions or what is prescribed in the SMCP. The data from my study can be further analyzed to understand how participants use English in their activities on board the vessel, such as giving or receiving commands, writing emails or filling out forms. A study using this data could be insightful for MET institutions creating curricula. Additionally, my data could be analyzed more in-depth by participant position to characterize the difficulties encountered in understanding the phrases be it phonetic, semantic, and prosodic or some other influence. To evaluate and improve NNS-to-NNS communication is well worth the effort and continued research in this field should be undertaken.

The industry continues to grow not only in volume of vessels and cargo transported across the world's waterways, but also in terms of the number of mariners of varied cultural and linguistic backgrounds and of the multi-cultural and multi-linguistic environments in which they find themselves. The number of NNS within the industry grows, and the situation presents a rich opportunity to study real-world communication between these English language learners. The ability to speak clearly, concisely and without ambiguity is absolutely necessary in the maritime industry, and is stated as such in internationally binding agreements. Likewise, the ability to comprehend and correctly interpret an utterance is crucial to avoid loss of life and/or cargo, as well as prevent environmental disasters. Finally, it is imperative that all in the maritime field work to establish a 'lingua franca' of maritime English that truly is global and used. It cannot be that only non-native speakers' use this codified language, but native speakers in sea-going capacities as well as land-based maritime position must be attuned to the need for speech practice that can be readily understood by all with whom they come in contact.

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Communicative Competence under STCW 78, as Amended, and its Application in China's Maritime Education & Training

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Abstract

Multilingual and multicultural seafarers working on the same vessel are a significant feature in the world's shipping industry today, where the need for effective communication is becoming more important than ever. The STCW, as amended in 2010, has given great emphasis to communicative competence of seafarers.

This paper firstly analyses the importance of effective communication and the necessity to improve the communicative competence of seafarers. Then, the legal framework of communicative competence is stated in detail and comparisons are made with the standards established by the International Civil Aviation Organization (ICAO). Finally, the content of Maritime English courses and Navigation/Marine Engineering English Competence Examination (N/MEECE) in China are analysed and some suggestions are given to improve the communicative competence of Chinese seafarers.

keywords: *effective communication, communicative competence, STCW 2010, Maritime English*

Introduction

It is becoming common that marine vessels have crews that are multinational and multilingual. Although English is the language often used on board, the first language of many may not be English. According to the International Maritime Organization (IMO), 80% of accidents at sea are caused by human error, and one of the main causes of these accidents and incidents, some involving loss of life, large number of injuries and extensive financial loss is due to poor standards of Maritime English (Ziarati, 2006). Following the adoption of the Manila amend-

ments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW) in June of 2010, the communicative competence of seafarers and effective communication were emphasised. In order to achieve the mandatory requirements under the STCW Code, it is quite essential that seafarers develop effective and efficient communication skills and profound knowledge of Maritime English. This would obviously increase the safety of operation of ships and protection of marine environment and success of seaborne business.

This paper tries to explain the importance of effective communication and the challenges that Maritime Education and Training (MET) institutions in China may encounter in their efforts to improve the communicative competence of Chinese seafarers. Recommendations will be made to MET institutions and the Maritime Safety Administration (MSA) in China to improve their Maritime English teaching and assessment practices so that the seafarer's communicative competence is improved and well developed.

Effective communication

The definition of effective communication

Communication is the transmission of information between a speaker who transmits message and a/many listener(s) who take(s) the delivery of the message. Communication can be considered effective if the message which the speaker intends to send is clearly understood by the listener(s) through a common system of symbols, signs, behaviour, speech, writing, or signals, by physical, mechanical or electronic means ("The Alphabet of Effective Communication," n.d.). So the ability to properly communicate by all the methods mentioned above is very important.

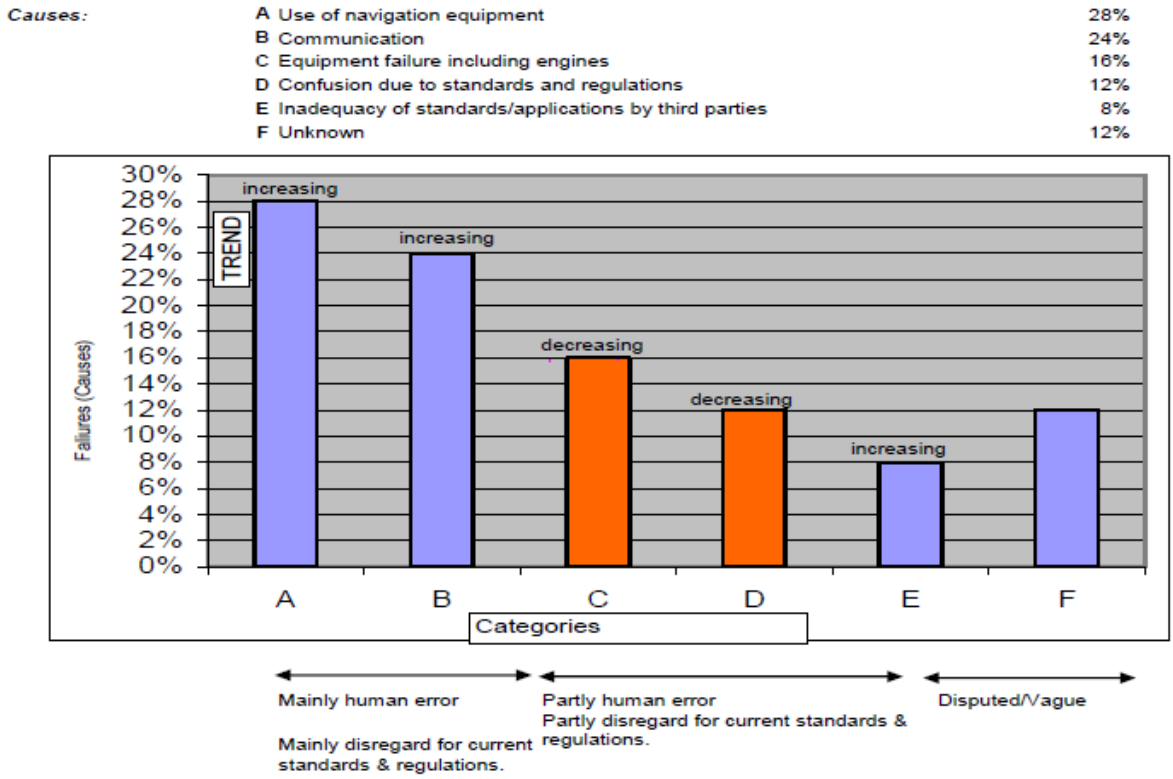
The importance of effective communication in MET

Miscommunication leads to marine accidents

Many factors may affect the safety of the ship and the ability of the seafarers to perform their duties on board well. One of the factors is that of ineffective communication. Unfortunately, breakdowns in communication are common factors in many accidents at sea. According to the

research of Ziarati (2006), the miscommunication leads to about 24% of the marine accidents and the percentage is still increasing.

fig 1: Main sources of accidents (Ziarati, 2006)



Multilingual and multicultural crew on board

Nowadays, multilingual and multicultural crew on a same merchant ship is a very common and dominant feature. That is to say the majority of the crew commonly use language on board which may not be their native language. This significantly contributes to some misunderstanding during communication. 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, risking and even causing damage to lives, property and the environment (Trenkner, 2007).

Challenges of effective communication to METs in China

With the economic growth in China, there has been a very significant increase in the number of seafarers in China, from 0.2 million in 2009 to more than 0.6 million in 2014 (China MSA,

2015). Normally speaking, with the fast expansion of the total number of Chinese seafarers, the number of seafarers working on foreign vessels should also have increased. However, according to the annual report on Chinese seafarers in 2014, seafarer export has only been increased on a small scale from 2009 to 2012 and decrease from 2013 (China MSA, 2015). Seafarers available for export are insufficient, especially the officers.

fig 2: Growth in the number of registered seafarers (China MSA, 2015)

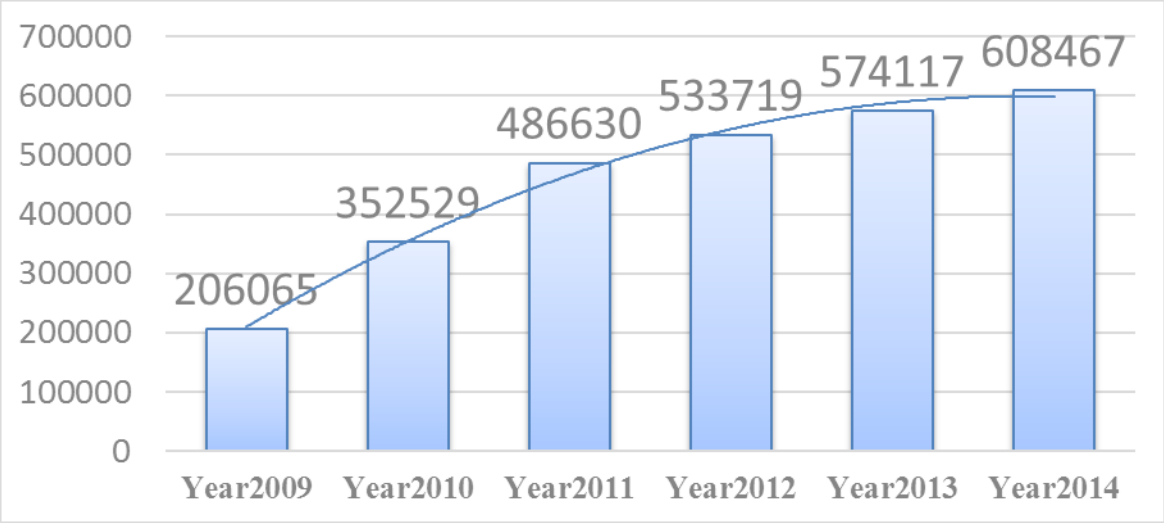
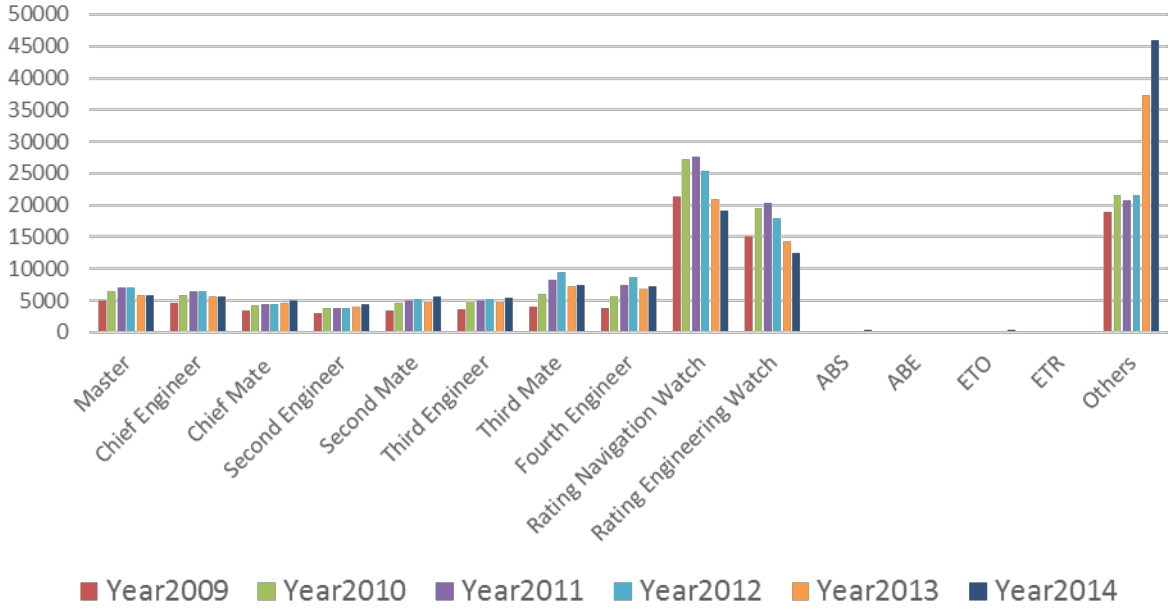


fig 3: Development of seafarer export in China (China MSA, 2015)



There are many factors contributing to the slow development of Chinese seafarers export. The most significant reason lies in the limited ability to communicate effectively. Much efforts should be made in METs to train the seafarers to enhance the English language skills as well as the other specialized knowledge to communicate more efficiently. Ultimately the solution is to improve the communicative competence of seafarers.

Communicative competence

Definition of communicative competence

American sociolinguist Dell Hymes (1972), was one of the first to promote the concept of communicative competence as the potential capacity of a person includes language knowledge and the ability for use of language (Hymes, 1972). In 1980, Canale and Swain defined the communicative competence as to conduct social and cultural communication effectively, expressing and understanding information as well as negotiating in a particular occasion (Canale & Swain, 1980).

Legal framework of communicative competence

As the importance of communicative competence and effective communication has been well recognized by the shipping industry, the IMO has developed many conventions and codes that have detailed requirements for communicative competence and effective communication, including the STCW Convention and the STCW Code, the International Convention on the Safety of Life at Sea (SOLAS), the International Safety Management Code (ISM Code). In addition, the International Labour Organization has also made requirements for English language competence in the Maritime Labour Convention, 2006 (MLC).

STCW Convention

According to Regulation I/14 of the STCW Convention, effective oral communication should be kept on board at all times (STCW, 2011). All the detailed communicative requirements listed in the part A of the STCW Code are presented in Annex 1.

From Annex 1, containing the detailed requirements communicative competence, at least six significant issues can be extracted and shown in Table 1.

table 1. The significant issues of communicative competence in STCW

Deck Department Section A-II	Engine Department Section A-III
Table A-II/1~ Table A-II/5 & Table A-IV/2	Table A-III/1~ Table A-III/7
SMCP, English in written and oral form, to use nautical publications and messages	English in written and oral form, to use engineering publications
Given and Received of communication	Given and Received of communication
Visual signaling (Morse light, SOS, Single-letter signals)	Internal communication systems (Telephone, VHF, PA)
VTS (Newly invented in the STCW Convention, as amended)	-
Effective communication ashore	Effective communication ashore
Bridge Resource Management (BRM)	Engine room Resource Management (ERM)

1. For Deck department, the SMCP is clearly required to be use for ship-ship, ship-shore communications. And English in written and oral form, the ability to use nautical publications and messages are also mentioned. In other words, these are the requirements for writing and reading (language) skills.
2. Clearly and ambiguously given and received of communication is also frequently appeared. This refers to the listening and speaking skills.
3. Visual signalling, communication with VTS, effective communication ashore and effective communication under Bridge Resource Management are also very essential for the communicative competence.
4. For engine department, the difference would be the ability to use internal communication systems and communicate effectively under Engine room resource management.

SOLAS Convention

According to Regulation 14 of chapter V of the SOLAS Convention, each seafarer shall be required to understand and, where appropriate, give orders and instructions and to report back in the working language. In addition, 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 watchkeeping personnel, unless those directly involved in the communication speak a common language other than English (SOLAS, 2001).

ISM Code

According to the ISM Code, ship's personnel shall able to communicate effectively in performing their duties related to the Safety Management System (SMS) (ISM Code, 2010).

SMCP

The IMO Standard Marine Communication Phrases (SMCP) were adopted in 2001 and they replaced the Standard Marine Navigational Vocabulary (SMNV) adopted by the IMO in 1977. The objectives of the SMCP are to reduce the problem of language barriers and avoid misunderstanding during ship-shore (and vice--versa), ship-ship and on board communications. The IMO SMCP developed a lot of useful phrases covering the most important ship operations and safety-related fields.

MLC

Based on the MLC, taking account of the different nationalities, languages and cultures, the knowledge of the English language is required especially when accessing ship-shore telephone communications, and email and Internet facilities (ILO, 2006).

Comparison with communicative competence in ICAO

If a seafarer meets all the requirements of communicative competence in the legal framework, does it mean that the seafarer has obtained the ability to communicative? The answer would probably be NO.

Similar to the IMO, the International Civil Aviation Organization (ICAO) is also a UN specialized agency supporting a safe, efficient, secure, economically sustainable and environmentally responsible civil aviation sector. The ICAO has established English language proficiency requirements (LPRs) for pilots and air traffic controllers. This section will make a comparison regarding communicative competence between maritime industry and civil aviation sector in order to find some lessons that can be learnt from ICAO.

Components of communicative competence

According to the communicative competence for pilots and air traffic controller in the ICAO, four components are included in communicative competence of seafarers in table 2.

table 2: Components of communicative competence

Seafarers	**Pilots and air traffic controller**
Maritime English Competence	Communicate effectively
Discourse competence	Accuracy and clarity
Strategic	Strategic
Sociolinguistic Competence	Dialect or accent

1. **Maritime English Competence**

   According to the STCW, as amended, the communicative competence for seafarers would be the ability to use the Maritime English to communicate.

2. **Discourse competence**

   Discourse competence is the competence of constructing a discourse by connecting a series of phrases and sentences. The IMO SMCP replace the Standard Marine Navigational Vocabulary (SMNV) would be evidence for emphasis the discourse competence (IMO, 2001).

3. **Strategic communicative competence**

   The verbal and nonverbal communication strategies may be called into action to compensate for breakdowns in communication due to performance variables or due to insufficient competence. According to the STCW, as amended, the visual signaling such as Morse light, SOS, and single letter signaling would be a very essential emergency or non-routine communicative competence for a seafarer.

4. Sociolinguistic Competence

The last component is the sociolinguistic competence. As mentioned above, it is becoming common that marine vessels have crews that are multinational and multilingual. The sociolinguistic competence has become very important for a seafarer's social life (KITADA, 2016).

Language proficiency standards

The ICAO has classified the language proficiency standards into six levels. Pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications at the specified level which contains six descriptors, including pronunciation, structure, vocabulary, fluency, comprehension, interaction. Level four is the minimum level.

However, the IMO does not have a very clear and global classification for the language competence of a seafarer. Luckily, Professor Clive Cole divided the yardstick of Maritime English (ME) for ship officers into 9 bands. Each band has its own qualification requirements and the band 5 is the minimum band (Cole & Trenkner, 2009).

table 3: Yardstick of ME Competence for ships officers and ICAO Language proficiency standards

<table>
<tr><th colspan="2">Yardstick of ME Competence for ships officers</th><th colspan="2">ICAO Language Proficiency Standards</th></tr>
<tr><td>Band 9</td><td>Expert User</td><td>Level 6</td><td>Expert</td></tr>
<tr><td>Band 8</td><td>Very Good User</td><td rowspan="2">Level 5</td><td rowspan="2">Extended</td></tr>
<tr><td>Band 7</td><td>Good User</td></tr>
<tr><td>Band 6</td><td>Competent User</td><td rowspan="2">Level 4</td><td rowspan="2">Operational</td></tr>
<tr><td>Band 5</td><td>Effective User</td></tr>
<tr><td>Band 4</td><td>Modest User</td><td>Level 3</td><td>Pre-operational</td></tr>
<tr><td>Band 3</td><td>Limited User</td><td rowspan="2">Level 2</td><td rowspan="2">Elementary</td></tr>
<tr><td>Band 2</td><td>Intermittent User</td></tr>
<tr><td>Band 1</td><td>Non User</td><td>Level 1</td><td>Pre-elementary</td></tr>
</table>

English language proficiency test

ICAO seeks to improve aviation safety by identifying global recognized tests of aviation English that are designed specifically to confirm how well aviation professionals can communicate in plain English during flight operations. To become recognized by the ICAO, testing service providers (TSPs) should document adherence to the ICAO Recommended Criteria for Aviation Language Testing by completing the checklist and submitting evidence for each item on the checklist, referencing the criterion item number (ICAO, 2009).

However, although Maritime Tests of English Language (MarTEL and MarTEL PLUS) have established a set of tests and standards transferring innovation from the existing English language standards, namely the IMO Maritime English 3.17 model course and IMO's Standard Marine Communication Phrases (SMCP), presently, there are no recognised international standards for the assessment of the English Language skills of seafarers (MarTEL, 2013).

Implications for policy and practice in China

Implications for MET institutions

Revision of the curriculum and contents of ME course

The new requirements of the STCW, as amended, would directly influence the curriculum and contents of Maritime English course, including the updating of the teaching materials, training the ME instructors and revision of the curriculum of Maritime English Course.

Improvement of the qualification of ME instructors

According to Regulation I/6 of the STCW Convention, as amended, the instructors should be appropriately qualified for the type and level of training involved. The future ME instructor is required to acquire knowledge of the linguistic features of the English language appropriate to maritime discourse/text and communication (Cole & Trenkner, 2007). Much attention should also focus on the Language teaching methods as recommended in IMO model course 3.17.

Implications for the Administration

As effective communication at sea is so important, the Marine Safety Administration (MSA) of China has attached much attention to the establishment and development of examination and evaluation of the seafarer's English competence (Zhang, 2013). The Navigation/ Marine Engineering English Competence Examination (N/MEECE) includes two parts. Part 1 is a computer-based exam. Part 2 is a listening and speaking test which is a very efficient method to assess the listening and speaking ability of seafarers.

Shortcomings of N/MEECE in China

1. The exam part is mainly focus on grammar and structure of sentence which is not fulfil the meaning of STCW to develop the skills of maritime English. Besides, all the questions in the exam part are single choice questions without subjective questions. Many seafarers spend a lot of time to remember the questions and answers in order to pass the exam. However, they cannot use maritime English to effective communicate with others. The exam system cannot well lead the seafarers to improve the ability of using maritime English.

2. The designated questions in listening and speaking test are not well updated and cannot suit to the real working environments.

3. The N/MEECE lack of the writing skills of English which is also a very essential part of communicative competence.

Recommendations for N/MEECE in China

Although there are some problems with the existing N/MEECE system in China, it is safe to say that the system is acceptable in the whole process. Therefore, some recommendations are made to the N/MEECE system in China.

1. The main purpose of the N/MEECE is to assess the ability to communicate effectively, rather than the grammar or structure of sentence.

2. In the exam part, some questions related to grammar or sentence structures may be deleted. Besides, increasing the questions by short paper writing can effectively evaluate the writing skills of a seafarer.

3. In the listening and speaking part, the main focus should be on the ability to effectively communicate, especially using the IMO SMCP.

table 4: Comparison between the requirements of Maritime English in STCW, Model Course 3.17 and N/MEECE

Users	**STCW 78/10**	**Model Course 3.17**		**N/MEECE(MSA standards)**
Deck officers	Use charts and other nautical publications	Use English in written and oral form to :	Use charts and other nautical publications	Public Usage Phrases Port entering and departing Berthing/Unberthing and anchoring Loading/Unloading operations Sailing Ship repairing and maintenance Fire-fighting and personal safety operation Salvage Distress Port state control Ship security
	Understand meteorological information and messages concerning ship's safety and operation		Understand meteorological information and messages concerning ship's safety and operation	
	Communicate with other ships, coast stations and VTS centres		Communicate with other ships, coast stations and VTS centres	
	Response to emergencies		Perform the officers duties	
	Effective communication in leadership and teamwork		Communicate with a multi-lingual crew	
	Use of SMCP	Understand and use IMO SMCP	IMO SMCP	
Marine Engineering Officers	Engine-room resource management Effective communication in leadership and teamwork Performing engineering duties	Adequate knowledge of the English language to use engineering publications	Publications	General English Basic knowledge in marine engineering Communication between the ER and the bridge Emergency situation External communication PSM/ISM inspections Simulation test
		Adequate knowledge of the English language to perform engineering duties	Use internal communication systems Maintain a safe engineering watch	

Conclusion

Multilingual and multicultural seafarers working on the same vessel have become one of the main features in the world shipping industry and the need for effective communication among multilingual and multicultural seafarers is becoming more important than ever. The STCW, as amended in 2010, has given great emphasis to communicative competence of seafarers.

This paper firstly analyses the importance of effective communication and the necessity to improve the communicative competence of Chinese seafarers. Then, the legal framework of communicative competence had been detail stated and comparison had been made with the standards in the ICAO. At last, the content of Maritime English course and Navigation/ Marine Engineering English Competence Examination (N/MEECE) in China are analysed and some suggestions are given to improve the communicative competence of Chinese seafarers.

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Maritime English Training for Chinese Ratings

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Abstract

In order to help Chinese ratings to build up basic Maritime English communication skills, many language professionals, MET institutes, shipping companies and ship owners have been involved in searching for more effective and efficient solutions, covering all aspects relating to Maritime English training, including course material, teaching methodology, classroom activities, assignment and exercises, and also assessment systems. The New Alliance Marine Training Centre (NAMTC) provides Maritime English training for Chinese seafarers of all ranks, who work on board ships with multinational crew using English as the working language. Therefore, development of suitable training programs has been an important task in front of Maritime English teachers and trainers, especially those for ratings because of significant market demands and abundant human resources. NAMTC Teaching Group of Maritime English possessing rich experiences accumulated in teaching Chinese seafarers developed a training program for Ratings under the brand of New Maritime English (NME). This paper introduces the syllabus, curriculum, teaching plan and assessment system of the program, which has been proven successful in enabling hundreds of young Chinese people with middle education background to get a relatively good job so that to improve their living standard.

keywords*: syllabus, curriculum, teaching plan, assessment system*

Introduction

New Alliance Marine Training Centre (NAMTC) is invested and owned by SINOCREW Maritime Service Co Ltd, the biggest private manning agent in China. SINOCREW provides manning service to ship owners and shipping companies worldwide, so it needs large quantities of qualified maritime human resources of all ranks to meet requirements of its customers. Therefore, to improve Chinese seafarers English communication skills is one of the major tasks of NAMTC.

The biggest challenge is to train ratings with low education background and poor English ability. We tried various course programs and accumulated experience of creating the most effective training package for them.

We decided to develop our own system for Chinese ratings.

The syllabus

After several rounds of practice and discussion, we worked out a syllabus as below:

Scope

This course is especially designed for Chinese seafarers to work as ratings on board ships with multinational crew using English as the working language. It is to help participants to build up a basic Maritime vocabulary to meet the minimum requirements for internal communications on board and some external communication within the scope of ratings' responsibilities.

Objectives

When successfully complete the course, participants will be able to:

- Use a basic Maritime vocabulary for working in multi-national working environment as ratings
- Recognize notices and signs within working sphere
- Use a limited range of Maritime English to communicate with their shipmates regarding daily routine operations and relevant drills for basic needs and simple situation
- Report and respond to emergencies

Course duration

1-2 months (24-48 training days, 192-384 teaching hours, depends on trainees' English knowledge)

Admission level

Chinese ratings with middle school education background

Course curriculum

Then we designed a curriculum according to STCW Code. The course structure is consisted of 36 topics, among which 18 are GME subjects for all ratings, and six SME for each department respectively:

	General ME Subjects	Description
1	Pronunciation and Phonetics	Vowels/consonants/diphthongs, phonetic symbols, main difference between Chinese and English sounds, basic maritime vocabulary, basic conversational strategies
2	General Information	Day, date, month and year, numbers and ordinal numbers, time in 12 hour clock and 24 hour clock
3	Weather	Basic vocabulary to describe weather, wind force & direction, gale warning
4	Shipboard Life	Shipboard personnel and nationalities, greeting and meeting people, gangway watch, handing in certificates
5	In the Messroom	Three meals, snacks, fruit & vegetables
6	My Interesting Ship Mates	Appearance, clothing, personality, countries and nationalities
7	My Leisure Time on Board	Hobby & interests, working in a multinational and cross-cultural environment, go ashore, shopping
8	Illness Reporting	Human body, illness and medicine, description of symptoms, consulting & diagnosing, request for medical assistance
9	Ship Familiarization	Ship's general arrangement, names of different parts, signs and symbols
10	Muster List	Shipboard organization, each rank's responsibility at emergency situations
11	Reporting Occupational Accident	Man overboard, occupational accidents, grounding
12	Fire Fighting Drill	Reporting fire, fire-fighting equipment, firefighting drill procedure
13	Life Boat Drill	Names of life boat and associated equipment, launching

		procedures
14	Personal Safety	Personal safety in accommodation area
15	Response to Emergency	Raising alarm, briefing crew, checking status of escape routes
16	MARPOL	Garbage disposal plan, antipollution equipment, SOPEP
17	Enclosed Space	Enclosed space, entering procedures, reporting accidents
18	Ship Safety and Security	Objectives of ISM Code, SMS, DP, ISM Audit

For the above contents, all students sit in the same classroom for 18 days. Then we split the class into three groups of Deck, Engine and Galley. Their respective topics are as follows:

	Specialized ME Subjects Deck	Description
1	Equipment & Tools	Bridge and deck equipment, reporting equipment status, general tools
2	Watchkeeping	Standard wheel orders and response, briefing on movement and traffic situation
3	Anchoring Procedure	Going to anchor, leaving the anchorage, tug assistance, personal safety on deck
4	Berthing and Unberthing	General situation, berthing, unberthing
5	Cargo Handling	Preparation for loading/unloading, operating cargo handling equipment and hatches, maintaining/repairing cargo handling equipment
6	Painting & Work Aloft	Terms of paints and painting, permit to work aloft, safety regulations

	Specialized ME Subjects Engine	Description
1	Engine Room Equipment & Tools	Main engine and auxiliary machinery, general tools used in ER
2	Personal Safety in ER	Personal protective equipment, safety regulations, safety signs
3	Engine Room Watch-keeping	Briefing on temperature/pressure/soundings, briefing on operation of main engine and auxiliary equipment, briefing on pumping of fuel, special machinery events and repairs

4	Bunkering Procedure	Prepare for bunkering, operating pumping equipment, reporting and cleaning up spillage, cleaning tanks
5	Hot Work Permit	Welding, riveting, cutting
6	Response to Emergency in ER	Checking equipment status, report damage, damage control activities, cancellation of alarm

	Specialized ME Subjects Galley	Description
1	Food and meals	Vegetables, fruit, fish/meat/poultry, three meals
2	Provision List	General stores, food provisions
3	Personal Safety in Galley	Beware of fire, personal protective equipment, cutting in safe way, using slicers, entering cold store, keeping galley clean and dry
4	Personal Hygiene	Wash hands, protective clothing, first aid box, wound/illness/treatment, standard of personal hygiene
5	Cabin Inventories	Cloth and linens, bedroom and sitting room items, galley items
6	Cleaning Equipment and Duty	Cleaning equipment, cleaning duties

Course book

Taking into account the education background and English knowledge of trainees, we decided that the course book should have the following characteristics:

1. Dual language

Our trainees, no matter whether they are experienced seamen or graduates from vocational schools, are familiar with terms or procedures in Chinese. Therefore, Chinese language used in the course book may help them to understand English, so that can save time in explanation and can ensure efficiency of limited teaching hours.

2. Focused on Communication skills

In each unit, we created sentences and dialogues, which reflect shipboard operation and shipboard life. The following passage is selected from our course book:

> OOW: Bosun, visibility is reduced by fog. We are entering harbour area. Stand by lookout on forecastle.
> Bosun: Yes, sir. Lookout standing by on forecastle.
> OOW: Bosun, visibility 5 nautical miles now. Keep lookout and report.
> Bosun: Keeping lookout. Heavy traffic in area.
> OOW: Visibility expected to reduce to 3 nautical miles in 2 hours. Keep sharp lookout for sound and visual signals.
> Bosun: Roger. Keeping sharp lookout for sound and visual signals.
>
> Bosun: Bridge, this is forecastle lookout. Vessel passing on port side.
> OOW: Roger. Keep sharp lookout.
> Bosun: Yes, sir. Keeping sharp lookout.
>
> Bosun: Bridge. Forecastle lookout. Vessel overtaking on portside.
> OOW: Roger. Keep lookout.
> Bosun: Yes, sir. Keeping lookout.
>
> OOW: Forecastle lookout, this is bridge. Attention. Dangerous targets on radar.
> Bosun: Bridge, vessel on opposite direction. Bearing starboard 10 degrees constant.
> OOW: Roger.

3. Emphasize pronunciation

Pronunciation is a big challenge for Chinese students who learn English because there is a significant difference between that of the two languages. For our ratings, it is especially difficult for they lack systematic linguistic education.

Pronunciation practice is involved in each teaching session. We mark each new word with phonetic symbols and demonstrate how to pronounce.

4. Use SMCP as much as possible

We choose suitable phrases of SMCP as contents of our course book, such as Standard wheel orders, Standard engine orders, Briefing on temperatures, pressures and soundings, Berthing and unberthing, Occupational safety, Fire fighting and drills, and Damage control.

It has been proven that SMCP is a very useful tool for Chinese ratings to learn Maritime English. For those topics not included in SMCP, we adopted the form of SMCP to create our course material. The following paragraphs are some of contents of the topic Enclosed Space Entry:

We will enter	cargo holds.
	tanks.
	cargo pump rooms.
	fuel tanks.
	cofferdams.
	duct keels.
	ballast tanks.

They are all enclosed space.

These places are dangerous because of	low oxygen level.
	toxic gases.
	flammable material.
	dangerous goods.
	harmful vapour.

Before entering into an enclosed space,

we must	get permission from the Captain.
	prepare safety equipment.
	check oxygen content.
	check toxic gas.
	check dangerous goods.
	go through checklist.

Ventilate	cargo holds.
	tanks.
	cargo pump rooms.
	fuel tanks.
	cofferdams.
	duct keels.
	ballast tanks.
Cargo holds	ventilated.
Tanks	
Pump room	
Fuel tanks	
Cofferdam	
Duct keels	
Ballast tanks	
Prepare	safety equipment.
	firefighting equipment
	breathing apparatus.
	walkie-talkie.
	safety harness.
Safety equipment	standing by.
Fire fighting equipment	
Breathing apparatus	
Walkie-talkie	
Safety harness	

The form of SMCP is suitable for students' reading in chorus, which is the most efficient classroom activity for them to remember new words and phrases, and the contents. It is also the most frequently used method in our daily teaching.

5. Sufficient exercises for students' practice

We designed sufficient and appropriate oral English exercises for students' practice in each topic. The exercises follow new words or phrases, small paragraphs or dialogues. This arrangement also provides instructors to control a cadence of teaching.

Assessment

We developed our own assessment system, including a Yardstick of Maritime English competence for Ships' Ratings:

Band	Definition	Description
5	**Effective User** (Bosun/Fitter/Chief Cook) (Pumpman)	Uses a basic range of Maritime English. Adequate for basic needs and simple situations. Able to verbalize and understand such items as names and ranks, ship's name and certain specifications of the vessel and/or its machinery. Able to ask and answer basic questions referring to the vessel, its safety and environmental protection procedures, and relevant emergency procedures. Can look up basic phrases from the IMO-SMCP but uses them inflexibly. Can report occupational accidents and respond to instructions in different situations,

	particularly in cases of drills or emergencies.	
4	**Modest User** (Bosun/AB/Fitter/Motorman/ Chief Cook) (Pumpman)	Uses a limited range of Maritime English, sufficient for job-related situations. Possesses the minimum level required to follow instruction in Maritime English using the IMO-SMCP. Can describe basic duties on board. Possesses adequate vocabulary related to daily operation and job responsibility.
3	**Limited User** (AB/Motorman/Messman)	Can communicate using Maritime phrases. Understands and executes orders from the IMO-SMCP for basic shipboard needs such as general emergency procedures and standard wheel/engine orders. Can recognize basic tools and work-related equipment. Recognizes notices and signs within working sphere and can follow without difficulty.
2	**Intermittent User** (OS/Wipper /Messman)	Possesses a very limited range of Maritime English. Can understand standard orders of mooring and anchoring operations. Capacity limited to elementary listening and reading skills. Can recognize signs and symbols in working sphere.
1	**Elementary User** (OS/Wipper)	Can identify basic firefighting equipment, life saving appliances and work-related PPE. Recognizes notices and signs within the working sphere but has difficulty in interpreting the information into action. At the lowest level, recognizes which language is being used.
0	**Non User**	Uses a few words or phrases such as common greetings but cannot understand Maritime phrases.

	Deck Ratings	Engine Ratings	Galley Ratings
1	General Expression		
2	Ship Familiarization		
3	Shipboard Equipment	Engine Room Equipment	General Stores
4	General Tools		Vegetables & Fruits
5	Personal Protective Equipment		
6	Safety Signs		
7	Response to Wheel Order	Briefing on machinery status	Three Meals
8	Maritime Expression		
9	Job Description & Responsibility		

10	Reporting Accidents & Response to Emergency
11	Rules and Regulations

We also created our assessment material with the following contents:

The assessment is face-to-face interview, and each lasts 20 - 25 minutes.

Results analysis

We assess trainees twice, initial assessment and final assessment. We gauge students' improvement by comparing results of the two. Here we choose initial and final assessment results of 107 students as effective samples for analysis.

The following chart showed the results of initial assessment for the 100

Fig 1 showed the results of initial assessment for the 100. After two month Maritime English training, the 73 of Band 0 at the initial assessment achieved the following results, demonstrated in fig. 2. The 4 of Band 0-1, whose ability is between Band 0 and 1, got achievements demonstrated in Fig. 3. Fig. 4 demonstrated the progress of those who got Band 1 in Initial Assessment.

fig. 1 Results of Initial Assessment

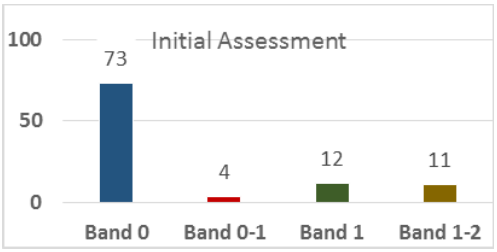


fig. 2 Results of Final Assessment of those from Band 0

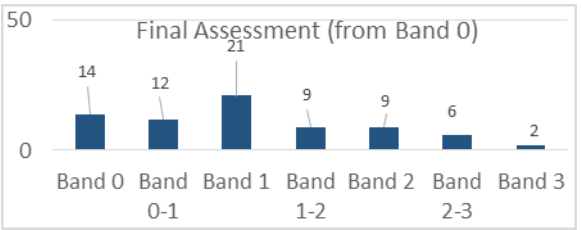


fig. 3 Results of Final Assessment of the 4 from Band 0-1

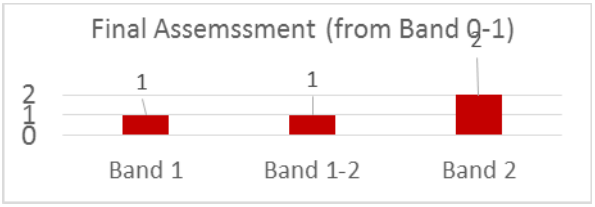


fig. 4 Results of Final Assessment of those from Band 1

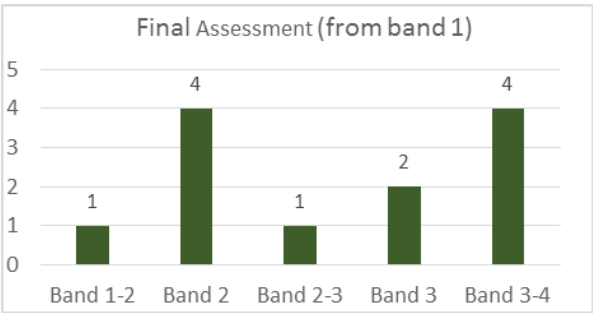
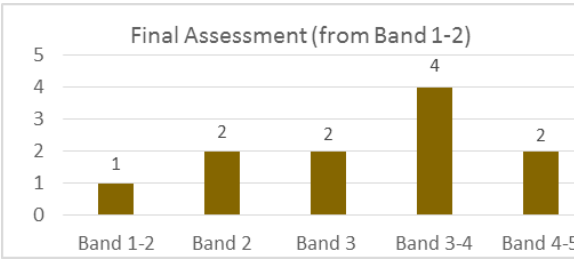


Fig. 5 Results of Final Assessment of those who got Band 1-2 in Initial Assessment



From the above analysis we can see that 85% of the trainees can improve their competence of Maritime English. Those with better English knowledge could get bigger progress. Most of our trainees could pass shipowners' interview and get employment on board ships.

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Cross Curricular/Cross Course Adaptation, Design and Implementation of Teaching and Learning Activities of Maritime English

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Abstract

There are various definitions of curriculum proposed by different scholars, but according to Print [1] there is no universally accepted definition. Fisher and Muirhead [2] illustrate that most of the definitions explain curriculum as a formalized course of study designed and structured to enable students to learn. Various approaches have been used to discuss curriculum and this paper applies some of these approaches to analyse cross-curricular adaptation, design, and implementation of teaching and learning activities of Maritime English. It is, however, imperative to note the essential features common to curricula which include; formalized courses of study, specific planning or scheduling to determine learning outcomes and structure to facilitate learning and assessment.

Additionally, technological advancement has elicited new ways of approaching learning and instruction systems and subsequently influenced curriculum design, implementation, and evaluation. Learning environment has experienced dynamic shifts resulting to new instructional systems, innovations and changes in learning activities, content and assessment. This notion supports the process approach to curriculum development. Adaptation of Maritime English curricular should meet learning objectives to ensure that trainees who apply for employment onboard ships as officers in charge of a navigational watch, officers in charge of an engineering watch and ratings, possess the knowledge, understanding and proficiency (KUP) in English as specified in Table A-II/1, table A-III/1 and table A-II/4 respectively of the STCW Code [3]. This paper discusses cross-curricular/cross course adaptation, design and implementation of teaching and learning activities of Maritime English using product, process and growth metaphors to describe curriculum.

keywords*: cross-curricular, course design, teaching, learning, assessment, technology, competency, Maritime English.*

Introduction

IMO Model course 3.17 [4] provides a guideline for Maritime English instructors and curriculum developers to prepare Maritime English programs. The model course may be applied solely for maritime English or used together with other maritime courses curricular to develop maritime education and training for seafarers.

While it is not explicitly documented or universally accepted, some maritime training institutions and more so from English speaking nations like Kenya, instruction may combine Maritime English and Communication skills unit. This entails integrating communication skills onboard and ashore as well as the requirement of maritime English including the Standard Marine Communication Phrases (SMCP).

Also, collaboration between instructors of thematic function areas in Navigation and Marine Engineering with Maritime English instructors enables them to work hand in hand in curriculum development, course design and therefore enhance teaching, learning and assessment of seafarers. This paper extrapolates cross curriculum development process as production, process, and growth or journey.

Curriculum as production

In the metaphor of 'curriculum as production', curriculum is referred to as the means of production. According to Slack, Chambers and Johnston [5], a production process involves inputs, process and output. The key contributors to curriculum development are the students. Similar to a production process, curriculum development begins with a situational analysis to determine the current situation of the learners, instructors, internal and external factors. Learners have different knowledge levels (raw material characteristics) experiences, attitudes and aptitudes. Therefore the cross course / curricular design and evaluation should be tailored to match the situation of the learners [2].

Furthermore, Maritime English instructors who are the implementers of the Maritime English curriculum, their characteristics, background, qualifications, experience, strengths and weakness among other factors affect the curriculum design and development process across courses. Also, assessment of the internal environment gives an indication of the resources available, literature, and technological support, expectations of senior management in the institutions, resource allocation and potential to remedy problems throughout the courses being designed and delivered [1].

Integration of Maritime English curricular with courses taught ashore, in a college or onboard ship

Maritime English curricular should integrate, diagnose the needs of the learners, and establish the rationale of learning objectives, learning experiences and evaluation or assessment. Saylor, Alexander and Lewis support the concept of viewing a curriculum as a plan or process [6]. Cross-curricular course adaptation may utilize this notion with technical instructors and maritime English instructors planning the course content together to ensure that it covers the essential content of the relevant curricula.

There are two facets to this view of curriculum. One view is that curriculum is a "written document" [7], and the other view accommodates unwritten ideas from educators. Tyler [8] for instance, carefully examined teacher planning of courses and affirmed that while it may involve written notes, most teaching is based on a curriculum which is not documented.

For competence based training and particularly simulator training, maritime English curriculum developers in MET institutions together with other course instructors can conduct a presage for curriculum development. This can be done by examining the situation of the equipment available like Computer Based Training (CBT), single-task, multi-task or full mission simulators, assess the capability and qualification of the instructors and level of learners. Fisher states that a team of Maritime English and instructors from the practical thematic courses may be involved in developing the rationale, learning outcomes, learning activities, developing of course content and instructional evaluation [9].

Additionally, emphasis on projected learning outcomes as the key feature in curriculum design diminishes the attention from the unplanned outcomes or the hidden curriculum. The Hidden Curriculum is a "dominant force" in assessing what is taught [10]. Maritime English being both a learned language and skill may experience the effects of the hidden curriculum more than other courses.

Furthermore, the teaching methodology for example, virtual, simulation, role play or lecture may result in different learning outcomes hence the evaluation results may differ from projected outcomes even in a perceived homogenous group of learners. Ideally, students are involved in briefing and debriefing exercises, evaluation and assessment, enabling integration of their knowledge resources which further enhance curriculum effectiveness and facilitates personal growth [9].

Cross-curricular implementation, learning and assessment of Maritime English

Taking the School-Based Curriculum Development (SBCD) model, for example, curriculum development begins with a situational analysis which graduates to goal formation, program building, interpretation and implementation which is then monitored and feedback received. Maritime English curriculum should enable students (seafarers) to see the purpose for learning and provide for action and reflection to facilitate learning. Curriculum ideals are important for giving direction towards achieving the objectives and therefore, should be nurtured during teacher and learner interaction across courses [11]. This idea is supported by Bruner [12] where he states that "a good curriculum should aim for learning to take place in the areas of practice, wherein group work, and peer evaluation is routine, interpersonal contact is common and networks of engagements are extensive."

Besides, cross-curricular development, implementation, and appraisal may adopt the needs of the society or industry specifying the pedagogical procedures to be adopted by instructors or the conditions under which learning is to occur, hence compelling the instructor to embrace new practices [13]. Likewise, national assessment should enhance alignment with standards, for example, the Standards of Training Certification and Watchkeeping (STCW), 1978 as amended, aimed at standardizing competence of seafarers. When implementing learning activities and assessment, the curriculum aims, objectives, rationale and content should always be kept in sight.

Maritime English curriculum as a journey (process) across courses

The Maritime English teacher/instructor acts as a tour guide leading students through an environment of knowledge, skills, ideas and attitudes. The tour guide understands the unique response of individual travelers during the journey as they have different backgrounds, abilities, interests, aptitudes and purpose (courses) which are integrated to enrich the learning process.

Piaget [14] suggests four factors which contribute to learning including; brain and nervous maturation, learning through encounters with experience, learning from one another (social transmission) and equilibration. A Maritime English course designer should ensure that the learners have experience with the material to be mastered, provide an opportunity for sharing

ideas through group work and allow students to construct new meanings as they learn and have new experiences.

Also, a constructivist approach is seen to have a significant impact on cross-curricular and course design as knowledge is constructed in the mind of the learner hence a constructivist curricular is student centered rather than teacher centred [14] [15]. In this concept, knowledge is seen as a product of learning activities, experiences, social interaction and challenge to the learner's perceptions. Maritime English learners are therefore, empowered to organize their learning experiences with the instructor as a facilitator encouraging the students to make their ideas explicit as they challenge their existing knowledge through listening, speaking, reading and writing [2].

Piaget [16] proposes that learning occurs by active construction of meaning rather than through passive receipt of knowledge by learners. In the cross-curriculum process, as students encounter experiences, environments or situations across courses and functions, they perceive the new information by associating it with what they already know and hence restructure present knowledge to a higher level of conceptualization. According to Fosnot [17], the constructivist theory is important as maritime education curricula and teaching methods progressively change from transmission curriculum to transactional curriculum where, the students are actively involved in learning to reach new understanding through critical thinking, questioning, investigation and reason.

Similarly, decisions to apply either formative or summative evaluation should be made during the cross-curricular development process. It is important to consider available teaching resources like simulators and computers as they influence decisions on teaching, learning and assessment methods of Maritime English and other maritime courses [2]. Furthermore, no single approach to learning activities is superior to others in all situations, hence harmonization of the various methods may add value to the learning process.

In the face of rapid advancement in technology and innovation, curriculum development, implementation and assessment are shifting from the tradition, adopting a more comprehensive and differential nature to meet challenges and changes in society and industry. Maritime Education and Training is not an exception and has adapted accordingly to pedagogical methodologies propelled by electronic media like e-learning. Further, just as a production process may be affected by changes in technology, in the same way, technology may influence a curriculum development process, implementation and evaluation. A maritime English curriculum is now more value ori-

ented with the instructional design process dedicated towards the global community. Assessment methods have also evolved with the possibility of e-Learning and evaluation using eLearning Management Systems which have the capability to certify if the student has undertaken all the learning activities and is ready for assessment. Some software can write encrypted files, sent to the learning management system administrator to verify the effectiveness of the training [18] and experience of the learners as the journey progresses [19]; [20].

Conclusion

From the preceding, it is evident there is no universal definition of curriculum. However, various scholars concur that curriculum is a formalized course of study designed and structured to enable students to learn. It is also apparent that curriculum philosophy seems to be a result of various tasks and methodologies; it may be hidden or explicit, modern or traditional. It may also be a description of what happens in a learning process.

This paper notes that the models of the curriculum as product and process or journey have their strengths and weakness, but none is individually perfect for all situations. Consequently, in concurrence with Bruner's [12] concept, it is expedient to coordinate and develop process and product approach in the Maritime English curriculum to ensure that it is adaptive across curricula and courses, the industry and technology. This requires change management skills to harmonize the variables in cross-curricular development, implementation and evaluation including but not limited to twinning.

There is evidence that cross-curricular development, execution and appraisal have undergone notable changes with the advent of technological development globally. This has propelled cooperative learning (students and teachers have the capability of exchanging information remotely over the internet), virtual learning and distance learning possibilities even for learners separated geographically from learning institutions. Maritime English gains from this development as non-native English speaking nations or regions that lack an adequate supply of specialized Maritime English instructors may utilize the resources available globally to enhance their curriculum.

An effective Maritime English curriculum is a spiral of repeated engagements to improve and deepen maritime skills, concepts, attitudes values and extend their reach. It has coherence, progression and value thus achieving objectives across the courses that utilize Maritime English as

a mode of articulation. As Bruner [12] suggests, "learning should not only take us somewhere, it should allow us later to go further more easily…"

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Developing and Validating a Universal Maritime English Proficiency Test for Deck Officers

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Abstract

According to Paltridge and Starfield [1, p2], 'English for Specific Purposes (ESP) refers to the teaching and learning of English as a foreign language where the goal of the learners is to use English in a particular domain'. In the case of Maritime English, this domain can be broken down into a number of areas including Deck and Engineer officers and Ratings. When teaching ESP, it is necessary to design appropriate assessment tools to allow learners to demonstrate their level of knowledge. In the case of a proficiency test, which is designed to measure 'a candidate's readiness for a particular communicative role, e.g. in a work or educational setting' [2, p135], a test is used to standardise judgements of performance and progress [3, pp367-368]. This paper will introduce the transnational MariLang project[1], which is tasked with developing and validating a universal proficiency test of Maritime English, to be used to measure the English language ability of Deck Officers around the world. We will present the necessary steps involved in the validation project and will introduce task types to demonstrate how the design of the test has been based on a detailed analysis of the Target Language Use (TLU) [4, p18] or 'real-life' domain in order to reflect as closely as possible the language abilities necessary for a Deck Officer (support level) or Deck Officer (support and management level)at sea.

keywords*: Maritime English testing, language proficiency, test design, test validation*

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Introduction

The language *domain* or *genre* of Maritime English (hereafter referred to as ME) is used worldwide by international and multi-lingual crews on board sea-going ships, most of whom are non-native speakers of English [5] [6] [7]. These L2 speakers usually start learning the specific linguistic structures of Maritime English during their secondary or tertiary education, i.e. at vocational schools or at university faculties. The STCW Convention [8] obliges Maritime Education and Training (MET) institutions to provide their students with an adequate English language proficiency to operate their ships safely. In an effort to provide clear learning targets, the IMO Model Course 3.17 "Maritime English" [9] defines a detailed catalogue of these targets, thus creating language areas or *sub-genres* for individual ranks and functions on board. Model Course 3.17 makes special reference to the compulsory IMO Standard Marine Communication Phrases as a compulsory element of STCW certification [10].

In addition to the documents edited by the IMO, other initiatives have been undertaken in the framework of European projects. The SeaTalk project aimed "to create a harmonized comprehensive framework for a common Maritime English education and training for seafarers" (www.seatalk.pro) and has mapped "linguistic competences, learning outcomes and professional standards to build an integral Maritime English syllabus" [11]. This syllabus description includes a Maritime English competence grid which links language criteria established by the MarTEL project [12] (www.martel.pro), with language learning outcomes and professional competencies set out in STCW.

The publications stated above deliver a clear qualitative framework of suitable learning objectives for the ESP domain of Maritime English. However, no language qualifications are defined in a quantitative manner, e.g. as minimum language proficiency levels which are universally accepted by international MET institutions. For this reason the trans-national MariLANG project is tasked with developing and validating a universal proficiency test of Maritime English which can be used as an international benchmark value. The aim is to provide Maritime English teachers and instructors with a tool to compare their students with international peer groups in line with the EALTA Guidelines for Good Practice in Language Testing and Assessment[1]. The ability "to standardise judgements of [student] performance and progress" [3, pp367-368] will help international MET institutions determine the status quo of their language learners. Follow-

1 European Association for Language Testing and Assessment (2016). EALTA Guidelines for Good Practice in Language Testing and Assessment. Available at: http://www.ealta.eu.org/guidelines.htm, viewed on 27 June 2016.

ing the examples set by the International English Language Testing System (IELTS; www.ielts.org) and the Test Of English as a Foreign Language (TOEFL) [13] which provide a proficiency assessment for general and academic English tests, a universal Maritime English proficiency test will be a useful tool for all stakeholders in the maritime domain.

Development of an assessment tool

A universal language proficiency test needs to take into account a range of factors. MariLANG adheres to the definition of language use and learning given by the Council of Europe in their Common European Framework of Reference for Languages:

> *"Language use, embracing language learning, comprises the actions performed by persons who as individuals and as social agents develop a range of competences, both general and in particular* ***communicative language competences****. They draw on the competences at their disposal in various* ***contexts*** *under various* ***conditions*** *and under various* ***constraints*** *to engage in* ***language activities*** *involving language processes to produce and/or receive* ***texts*** *in relation to* ***themes*** *in specific* ***domains****, activating those strategies which seem most appropriate for carrying out the* ***tasks*** *to be accomplished. The monitoring of these actions by the participants leads to the reinforcement or modification of their competences"* [14, p9].

The Maritime English proficiency test shall consider the *context* and *domains* outlined in the IMO SMCP and by the IMO Model Course 3.17 with the *language activities, texts* and *tasks* developed and listed in the SeaTALK and MarEng projects. It shall allow test takers to develop a communicative *strategy* to take full advantage of their respective *communicative language competence* level.

In line with McNamara's [2, p135] definition of a proficiency test and Paltridge and Starfield's [1, p2] definition of ESP, the test will cover all four skills (listening, reading, speaking and writing) discretely but will also integrate listening and speaking tasks to increase authenticity and to give participants the opportunity to demonstrate their ability to use English in the particular domain of Maritime English.

Test validation

Messick [15, p89] argues that 'many test makers acknowledge a responsibility for providing general validity evidence of the instrumental value of the test but very few actually do it'. He highlights two major threats to validity, which should be taken into account when designing and validating a test. These are *construct under-representation* and *construct-irrelevant variance* [15, p34]. The former occurs when the test contains too narrow a sample of the defined construct (that is, the abilities or traits to be tested) to give an accurate measure of the test taker's ability. For example, if students have learnt about, say, five different tenses but only one is tested, we cannot say how well a given test taker can deal with the other four tenses as we only have evidence about their ability in the one tense. Construct-irrelevant variance relates to factors which impact on a test-taker's performance but are not related to the individual's language ability. This could be poor sound quality for playback of a listening text or low-quality printing making it difficult to read the test paper easily.

In order to collect validation evidence for a language test, there must first be a firm theoretical foundation for the development of the test. Different authors suggest different steps in the test design process: Hughes [16, pp58-72] prefers a 10-step approach whereas Carroll [17, p13] proposes three steps in test design, consisting of describing the test takers, carrying out an analysis of their 'communicative needs' and then specifying the test content. Bachman and Palmer [4, pp85-86] suggests a 3-stage process comprising design, operationalisation and administration. The design phase includes describing the components of the test which will enable the test tasks to reflect the Target Language Use (TLU) domain, that is, how the language is used in real life, as closely as possible. After this, the test designer can write a 'blueprint' of the test. This is known as the 'test design statement' [4, pp88] or the 'test specifications' [18, p11]. This document contains all the necessary information about the test including information about the test takers and the purpose of the test as well as the number of tasks and items each test version will have, the duration of the test and how it will be scored. In the final stage, the test is administered and data is collected and analysed. On the basis of this information, decisions relating to the intended purpose of the test can be made and the 'usefulness' [4, p91] of the test can be assessed.

Bachman and Palmer [4, p17] also discuss six qualities of test usefulness. These are construct validity, reliability, impact, authenticity, interactiveness and practicality.

- ***Construct validity*** is the "the extent to which we can interpret a given test score as an indicator of the ability(ies), or construct(s), we want to measure" [4, p 21].

- ***Reliability*** is a measure of the consistency of the scores between test versions [4, pp19-20]. In other words, if a test taker takes one test version and scores, for example, 78%, we would expect, in an ideal world, that the same test taker could take a different test version or the same version of the test again and achieve the same score. Indeed, we would expect this to be the same an infinite number of times. In reality, however, we cannot get test takers to take the test over and over again so we need to calculate reliability in another way. This can be done using various statistical procedures according to Classical Test Theory, for example, split-half reliability or Kuder-Richardson 20 or 21, or using Item Response Theory, for example, by carrying out a Rasch analysis. Inter-rater and intra-rater reliability must also be calculated in order to assess the reliability of the test scores.

- ***Impact*** relates to the relationship between the test takers and test score use; in other words, it looks at the impact that the test scores have, on the one hand, on the individual test taker, and on the other hand, on other stakeholders such as education systems and society [4, pp29-30].

- ***Authenticity*** is an important aspect of a test as it relates to the extent to which the test tasks correspond to the use of the language in the TLU domain. If the test tasks do not relate to the way the language is used in reality, it is difficult to justify any generalisations we may make on the basis of the test score [4, pp23-24]. For example, if we want to assess whether a given applicant has sufficient English to do the job of a Deck Officer, the test tasks must relate to how that person would use English in the domain of a Deck Officer. If, however, the person has a qualification in General, Business or Academic English, it would be difficult to know whether the applicant has sufficient English to do the job of a Deck Officer. At best, we may draw the conclusion that the applicant has the capability of learning English but we have no grounds on which to assume that they would have the language for the position in question.

- ***Interactiveness*** relates to the interaction between the test taker and the test tasks. The key aspects here are how a test task engages the test taker's "language knowledge, meta-cognitive strategies, topical knowledge and affective schemata" [4, pp25-26].

- ***Practicality***, as the term suggests, refers to how practical the test development project is in reality. This aspect is concerned with how easy the test is to design, develop, administer and score given the limited resources available, such as time or money [4, p36].

To optimise test usefulness, it is necessary to strike a balance between these test qualities.

Weir [19] proposes a Socio-Cognitive Framework for Test Validation. This approach 'attempts to reconfigure validity as a unitary concept, and to show how its constituent parts interact with each other' [20, p10]. It outlines the validation process as a series of steps, indicating which types of validity evidence need to be collected for each of the steps [ibid.].

The language used in 'performing tasks is viewed as a social rather than purely linguistic phenomenon' (hence 'socio-') while the abilities tested are 'within the brain of the test-taker' (hence 'cognitive') [20, p11].

This framework involves the collection of both a priori and a posteriori validation evidence. A priori evidence relates to validation evidence which is collected before the test is administered while a posteriori evidence is collected after the administration of the test (Weir, 2005: 43). The better the a priori definition of the construct, the more meaningful the results of the a posteriori statistical procedures are likely to be [19, p18].

In Weir's frameworks, test-taker characteristics form the basis for the collection of context- and theory-based validation evidence. The latter feeds into the response, while the former, along with the response, feed into scoring validity, which, in turn, feed into the score. The score forms the basis for collecting consequential- and criterion-related validity evidence [19, pp44-47].

Context (or content) validity requires that a test contain 'a representative sample of the behaviour domains to be measured' [21, p19]. To achieve construct validity, the test developer must consider the task setting and its demands as well as the test setting and the administration of the test [19, pp56-84].

A priori evidence to support the context validity of the test can be gathered by carrying out a literature review and / or doing a needs analysis to define the TLU tasks while context validity can be measured by providing experts with checklists or questionnaires, or by interviewing test-takers [19, pp222-224].

Theory-based validity can be demonstrated by designing the test such that it replicates the processes required in real-life language use [19, p18] while theory-based validity evidence can be demonstrated by carrying out both qualitative and quantitative analyses [19, p234].

While context- and theory-based validity relate to Bachman and Palmer's quality of validity, the next part of Weir's framework, scoring validity, relates to Bachman and Palmer's [4] quality of reliability.

Scoring validity, which relates to internal consistency / reliability, is described as 'the degree to which candidates' scores on the individual items in a test are consistent with their total score' [19, p203] and can be measured by trialling test items and analysing the results as described in the section on Bachman and Palmer's [4] quality of Reliability described above.

Hughes [16, pp44-50] provides some guidelines for improving test reliability while Murphy [22, pp178-179] proposes a checklist of questions which can be used when designing a marking scheme.

Once scoring validity has been investigated and evidence gathered, we can look at external validity measures. Criterion-related validity relates to how test takers' score match up with some external measure, or criterion [18, p171]. This could be a teacher's assessment of a test taker's ability [18, p177] or a score on another test taken at approximately the same time (concurrent validity) or a score on a different version of the same test (parallel forms validity). Alternatively, we may look to a test taker's future performance for validity evidence (predictive validity) or to an external measure such as the Common European Framework of Reference for Languages [19, pp207-210].

Consequential validity includes both washback [19, pp211-214] known in Bachman and Palmer's [4] terms as impact, and differential validity [19, p210]. Washback relates to the impact that a test has on its various stakeholders, from test takers to parents to the society as a whole. This is important because 'social values and social consequences cannot be ignored in considerations of validity' [23, p19]. Washback can be measured through impact studies, which can be carried out via observations, interviews, expert feedback and stakeholder surveys [19, p259]. Differential validity, on the other hand, relates to test fairness and the avoidance of construct under-representation and construct-irrelevant variance [19, p210]. When investigating differential validity, we should also ensure that test bias is avoided as far as possible. This is when the test results in an unfair advantage or disadvantage for a given group of candidates. Accord-

ing to Bachman [24], sources of test bias include cultural background, age, gender, nationality, L1 background, background knowledge and cognitive characteristics.

Statistical analyses and test-taker biodata can be investigated to establish differential validity.

The MariLang test

The project team involved in the MariLang project consists of language testers, teachers of Maritime English and English for Specific Purposes, and maritime experts from five European countries: Belgium, Bulgaria, Germany, Greece and the United Kingdom. The MariLang test is based on Weir's Socio-cognitive Framework for Test Validation. Although the project is still in the early stages, a number of steps have been completed, taking into account the requirements for validity evidence provided above.

In order to establish context and theory-based validity, a literature review has been carried out in relation to specific purposes language testing. The IMO Model Course 3.17, IMO Standard Marine Communication Phrases, the SeaTalk project and MarTEL serve as a basis for the domains to be measured. These observations fed into the design of the test specifications and these test specifications will be used as the basis for item writing. The project team has undergone training in item writing and will use the knowledge gained there to design items in accordance with the test specifications. The next step will be to review and trial the items then these will be analysed both statistically and using expert judgement. Again, the project team will undergo training in item analysis in order to carry out the necessary analyses. Subsequently, the scoring validity will be developed. To do this, the rating criteria will be designed as a team in accordance with best practice and then the rating criteria will be reviewed, trialled and amended as necessary. The team will undergo training in standard setting and an expert panel will be invited to establish the cut scores for the different parts of the test. Statistical analyses will be carried out to establish item difficulty and item differentiation values and to establish inter- and intra-rater reliability. In order to establish criterion-related validity, scores will be compared with other assessments of the test-takers' ability, including teacher assessment and parallel forms validity. Over the longer term, the consequential validity of the test can be established through impact studies and stakeholder surveys.

Conclusion

Clearly, a lot of work needs to be done on the MariLang test development project and the project team would encourage members of the Maritime English community to be involved in the development process by reviewing and trialling items with your students. While this is a major undertaking, we firmly believe that a standardised test of Maritime English will be a major milestone in the education of seafarers around the world. It will also serve as a benchmark value against which Maritime Education and Training (MET) institutions can measure their own testing procedures and the language proficiency of individuals and student groups.

The qualitative framework of suitable learning objectives for the ESP domain of Maritime English will be complemented with a tool to measure language skills in this particular area quantitatively.

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IMEC 28 (19 – 22 September 2016)
Chalmers University of Technology – Gothenburg, Sweden

Set Up Your First Maritime English Course Using Moodle (workshop)

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Abstract

Learning Management Systems in general and Moodle in particular, have become more and more common in recent years. This workshop will be a practical introduction to Moodle as a tool to support the implementation of a blended-learning model for Maritime English classes. The workshop will allow participants to:

- set up a Moodle server,
- create a course on it,
- upload (video and text) content onto it,
- create the corresponding quiz,
- implement tracking of student activity.

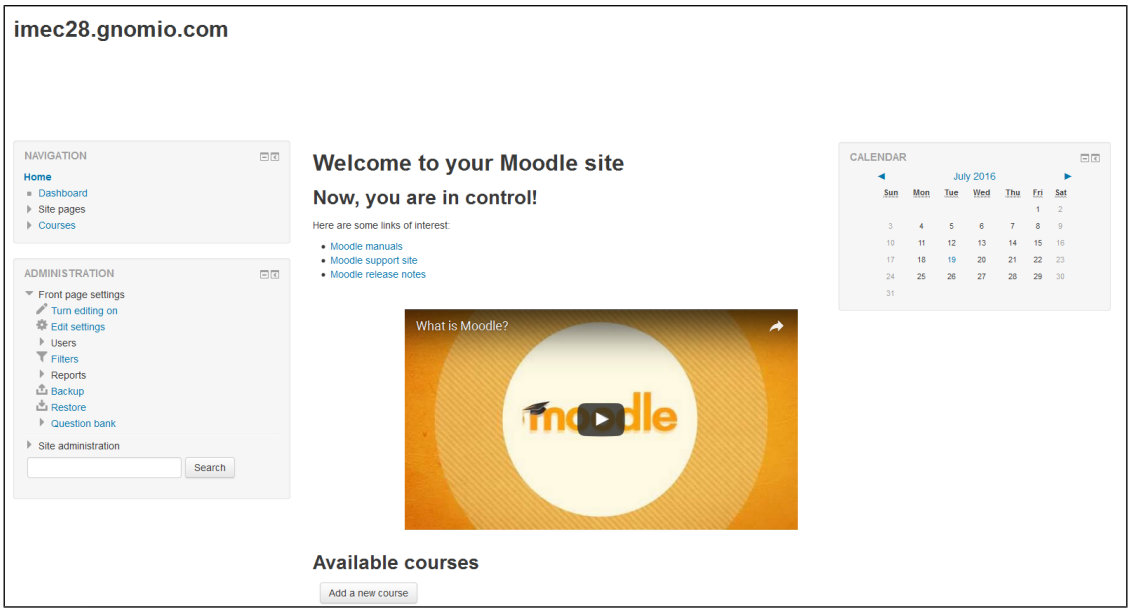
keywords: *Moodle; blended learning*

1. Setting up a Moodle server

1.1. Connect to gnomio.com

1.2. Choose a name for your moodle server. This will be its URL (address). Also provide an email address (to receive the login information)

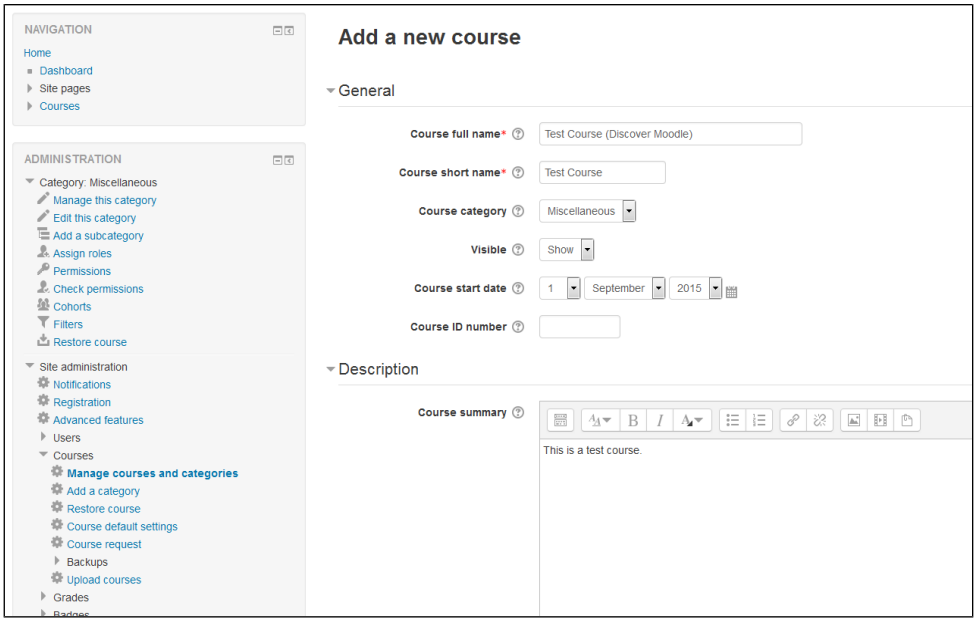
1.3. Once you receive your login information, use it to connect to your Moodle server. Once you are connected, the page should look like this:



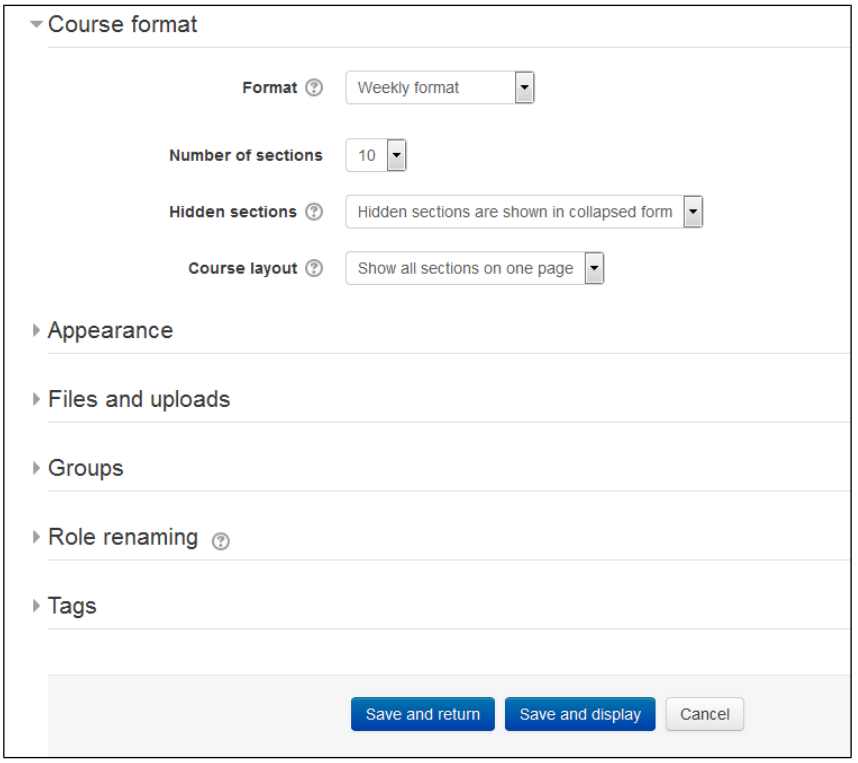
1.4. Click the "**Add a new course**" button, in the bottom of the page.

2. Creating a course

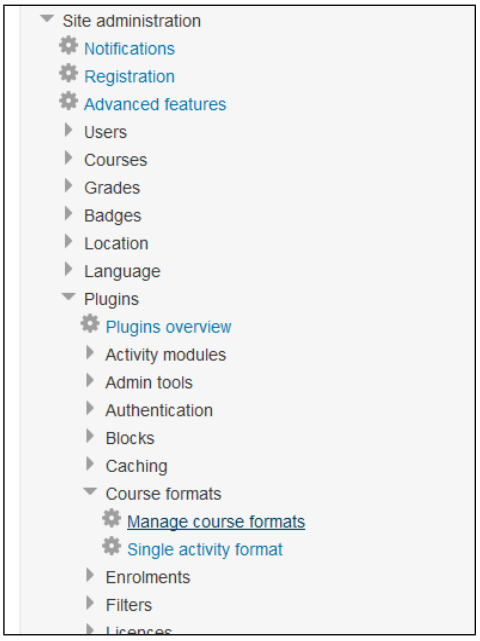
2.1. Set your course's parameters (name, category, dates, description)



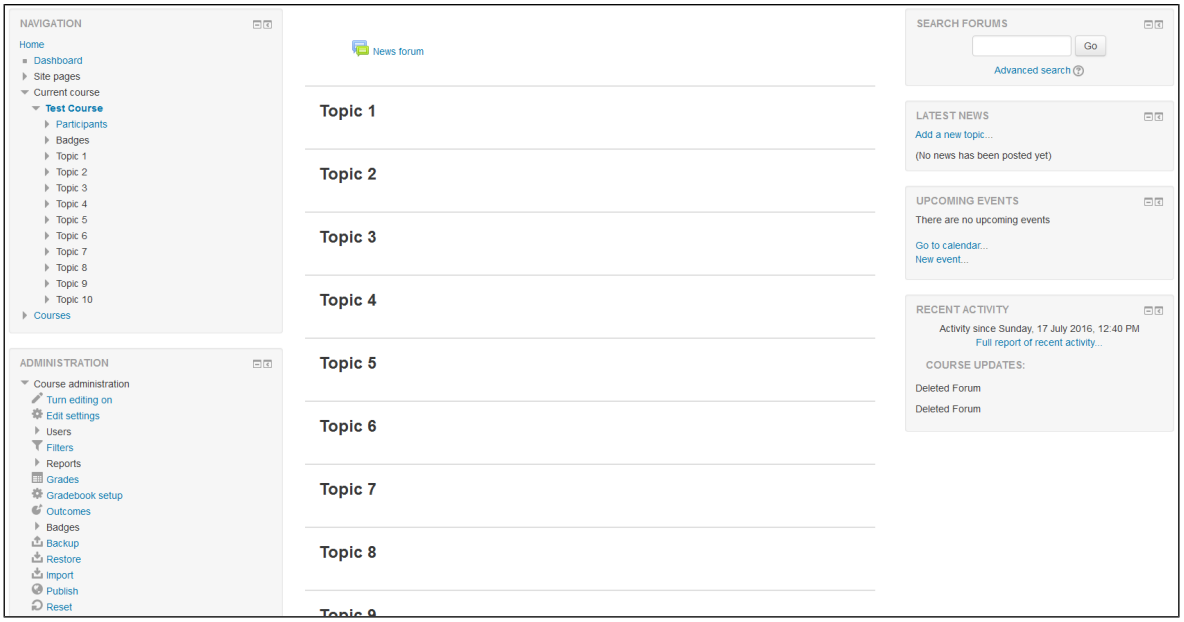
2.2. Set the format ("**Topics**" is best to start). "Weekly can suit you as well.



More formats are available and can be added from the site administration menu:



2.3. Go back to your server's homepage. Your new course should now appear in the list of available courses. Click on it, which should open the course's homepage:

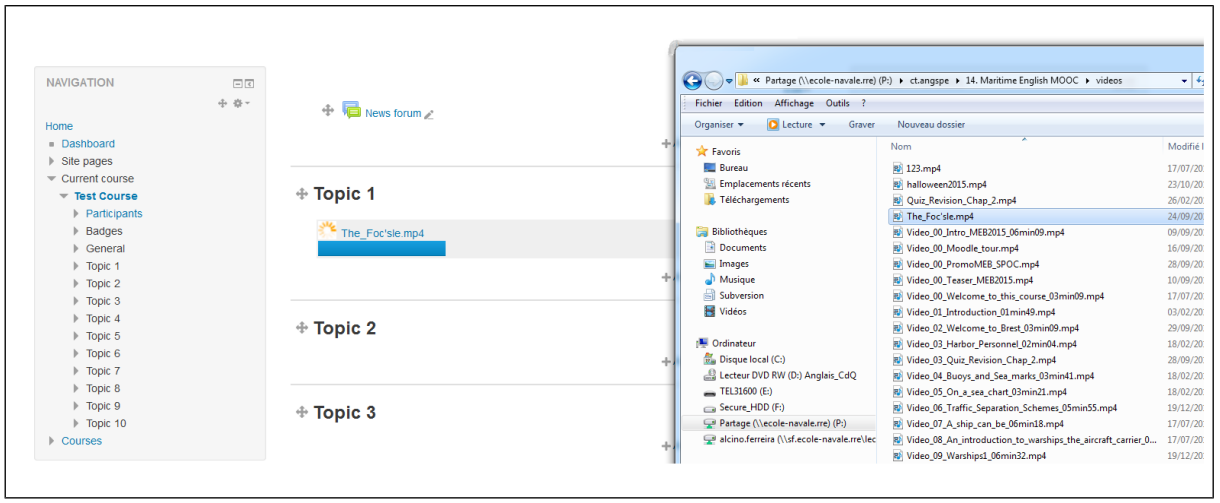


2.4. Click on "**Turn editing on**" either in the top-right corner of the page, or in the menu on the left hand side.

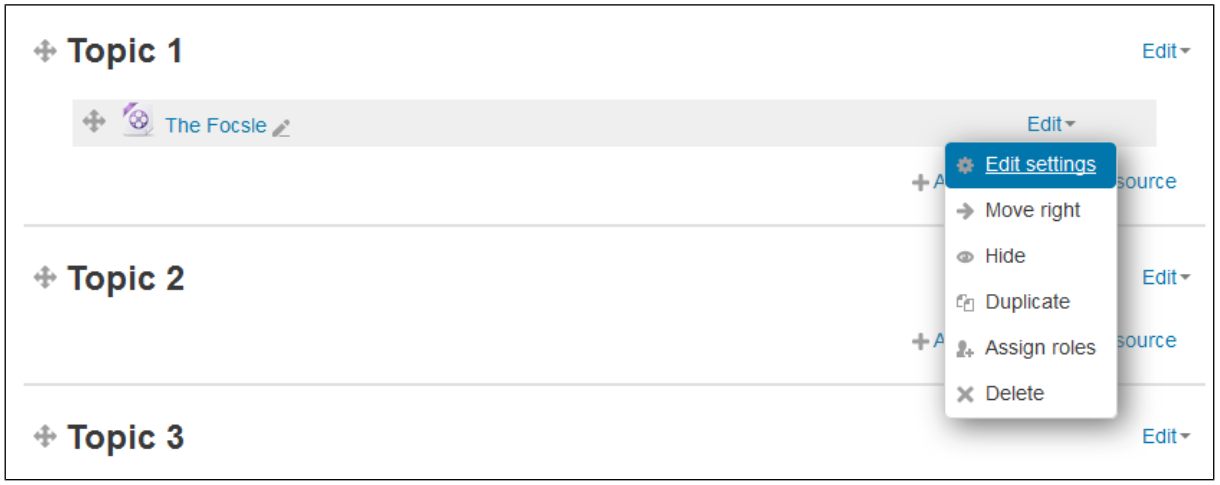
3. Uploading (video and text) content

3.1. Open a folder on your computer where you store your media.

3.2. Drag and drop the file(s) in the desired portion of the course. A progress bar will indicate when upload is complete.

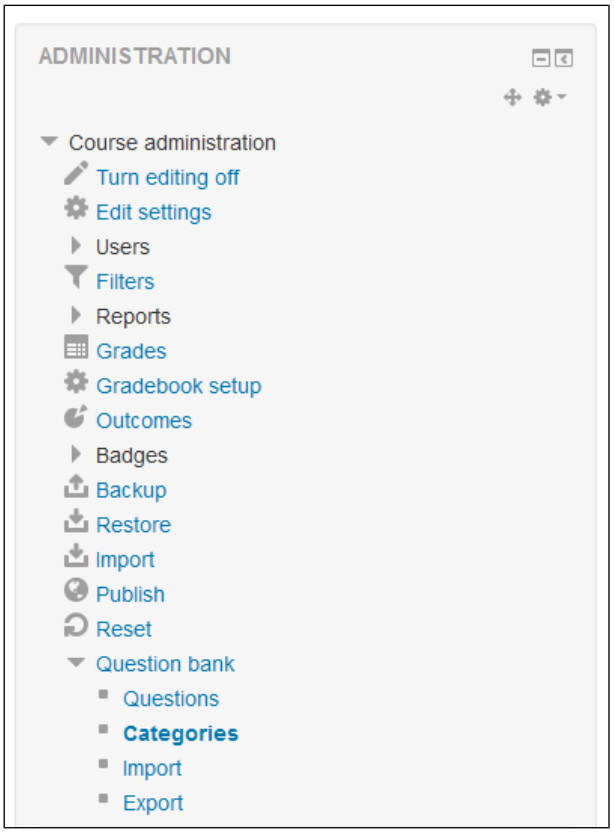


3.3. The name of the file and its parameters may be changed by clicking on the "Edit" link. This will let you choose viewing options such as forcing download, open in another window or in the same one, etc. Click save when you are done. The media is now available for your students.

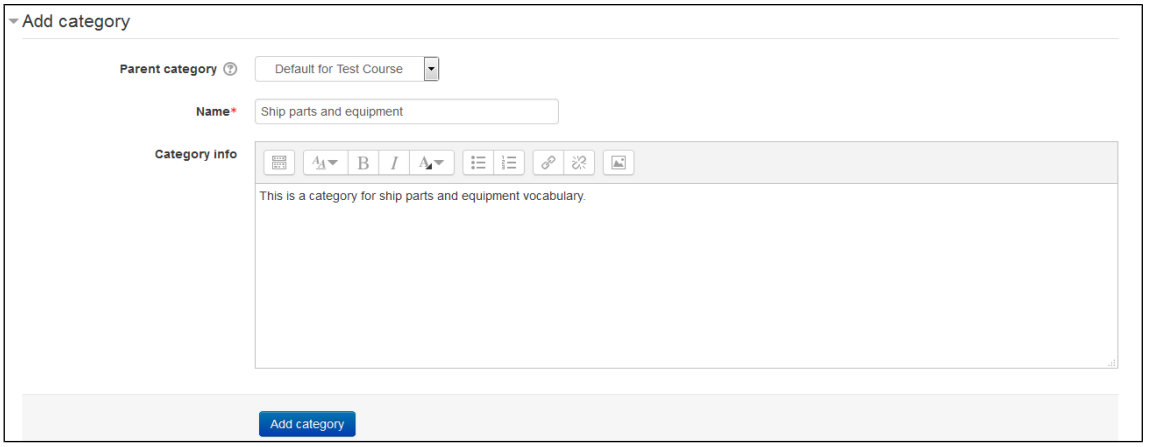


4. Creating the corresponding quiz

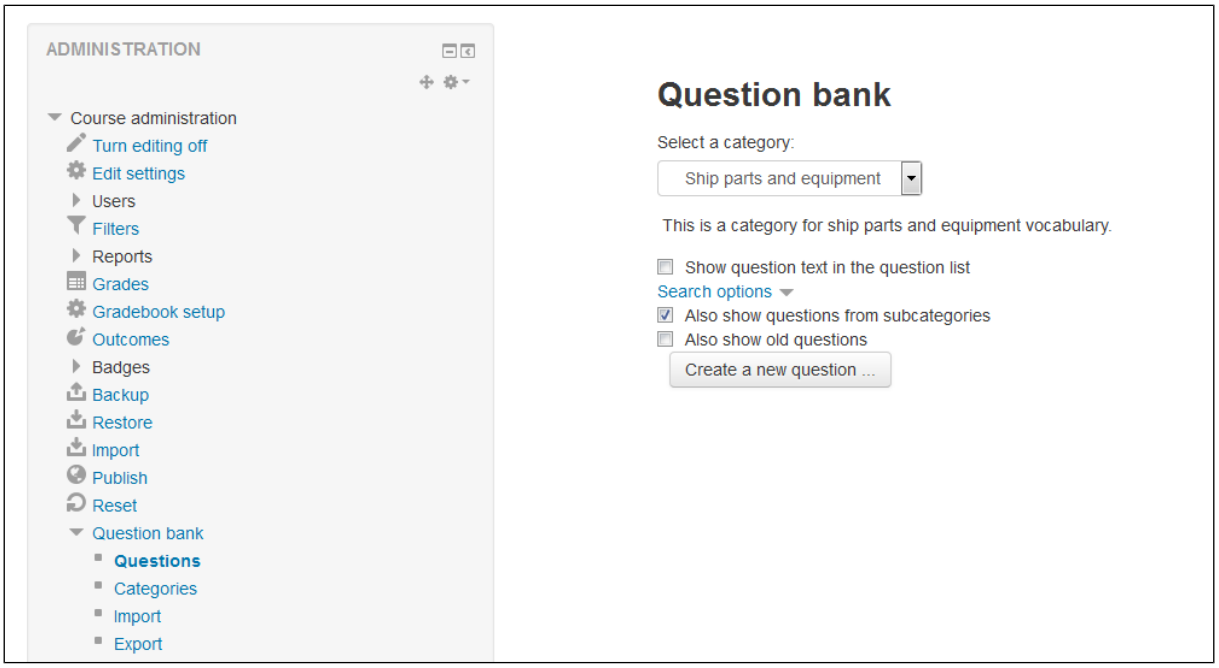
4.1. Before you create a quiz, you need to create your database of questions. In the course's "**Administration**" menu, on the left, open the "**Question bank**" item, and select "**Categories**".



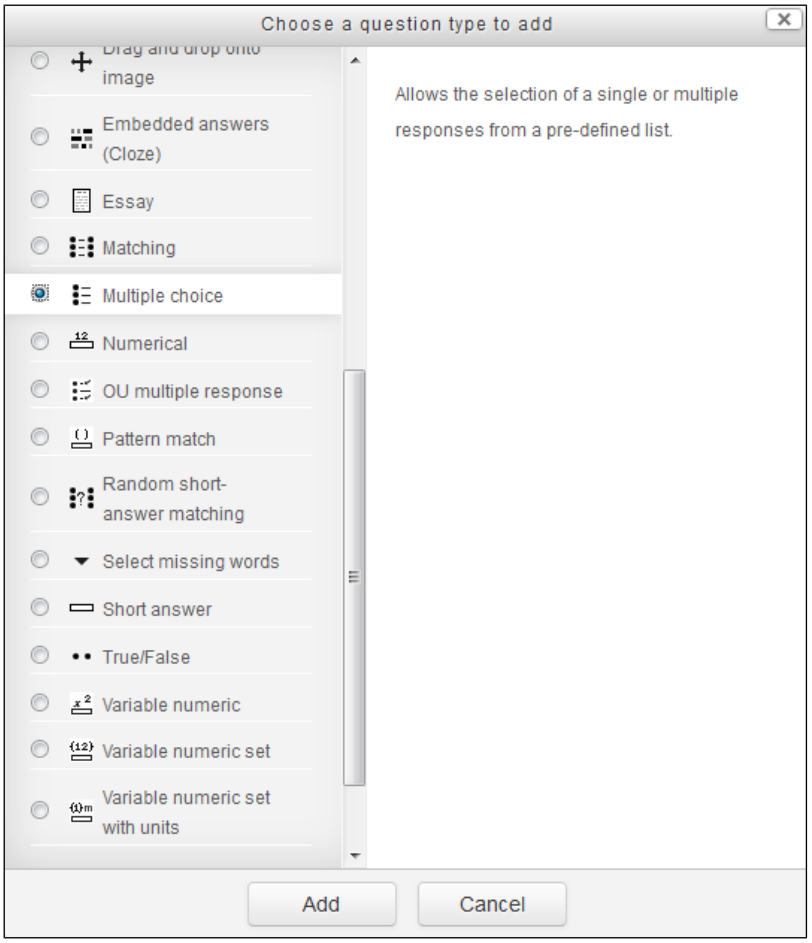
4.2. Fill in the information about the category in which you want to store your question. Click "Add category" when you are done.



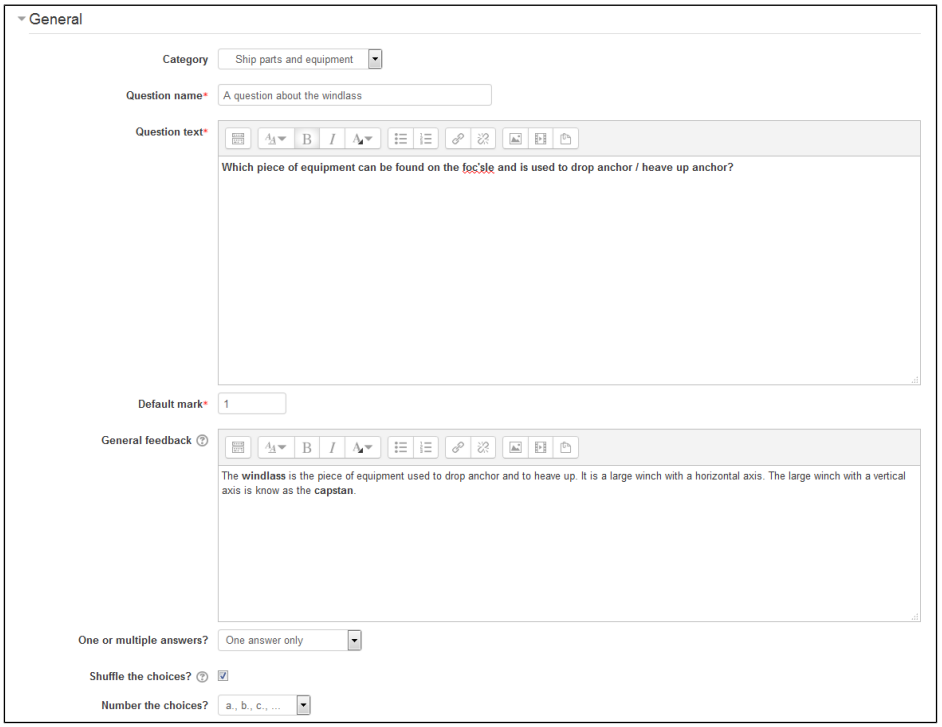
4.3. In the course's "Administration" menu, on the left, open the "Question bank" item, and select "Questions". Then select your newly-created category. Click on the "Create a new question" button.



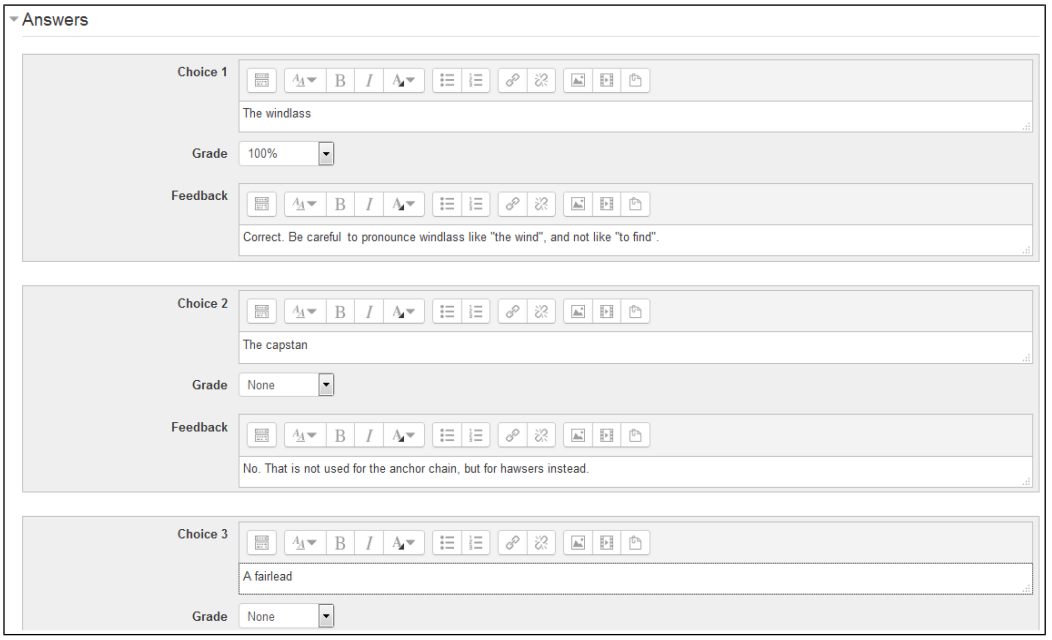
4.4. A pop-up window will let you choose amongst two dozen types of questions. For this example, we will select a multiple-choice question.



4.5. This screen will vary depending on the type of question, but it is always organized in two sections: a general section with general information about the question, its text, its name, grading mode, points, etc., and a section with the answers, data, when required. In the first section, give the question a name (students will not see this), a text (displayed to students), a general feedback (displayed to all students, whether they pass or fail).



4.6. Then fill in the information about each of the answers: the text for each answer (which can be formatted and include media such as videos, sounds or images), as well as the corresponding points (correct, half correct, etc.) and specific feedback:

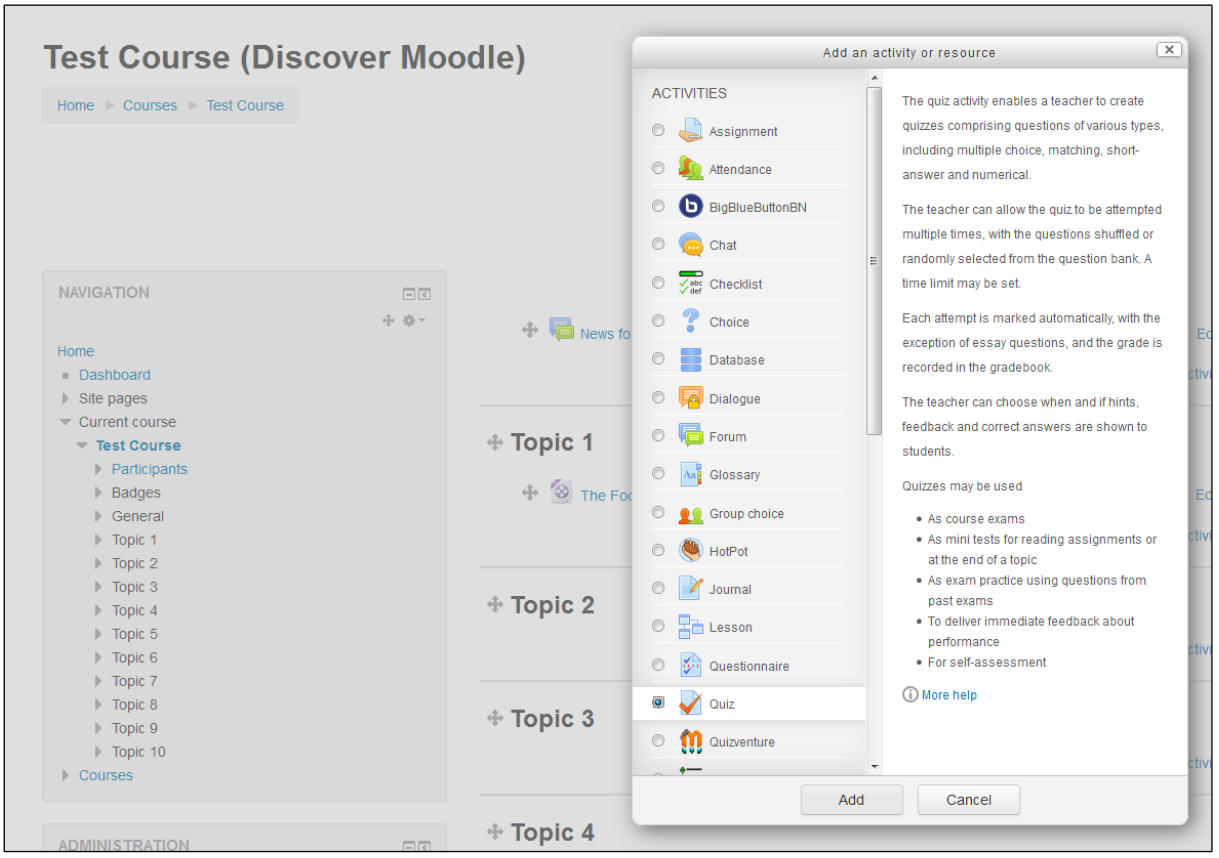


4.7. Click "**Save**" when you are done.

4.8. Repeat for each new question you create.

4.9. When you have enough questions, go back to your course's page, and under your media (the video which you want to "test"), click the "**Add activity or resource**" link.

4.10. In the pop-up window, select the Quiz activity:



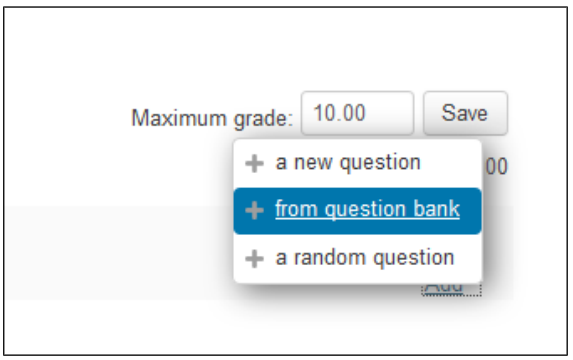
4.11. In the "**Create quiz**" page, fill in the required information pertaining to your, quiz. You may for example restrict the time to take the quiz (duration, and moment), reserve it to a particular group of students, or to students who have completed a specific task. You may assign a required mark to pass. You set layout options, and decide whether you want immediate feedback or deferred feedback, etc. There is a host of parameters you can set, but using the default ones will work. Any required field is marked with a red star. Click the "**Save and Display**" button when you are ready to add questions to your quiz.

4.12. Click the "**Edit quiz**" button.

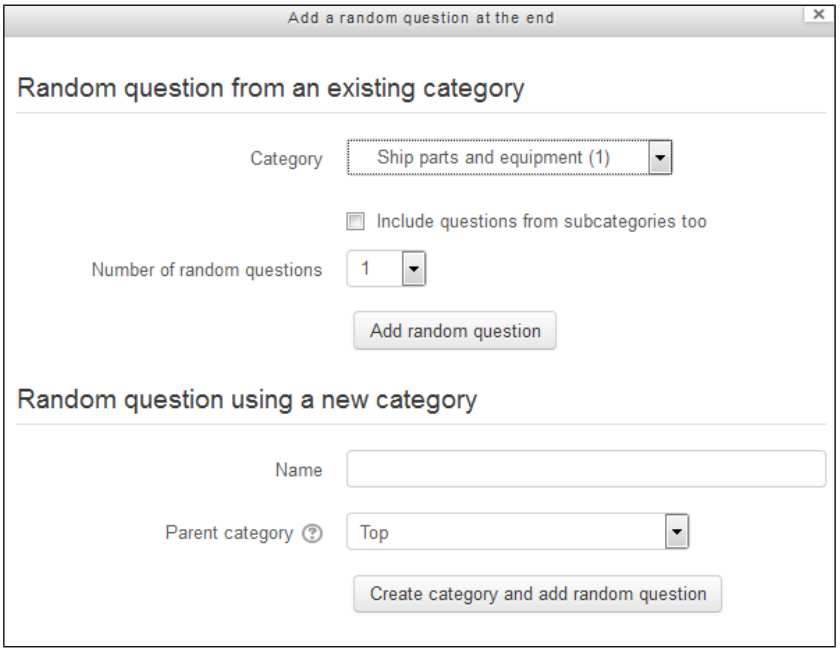
4.13. Set the maximum grade. Moodle will calculate the students' grade based on the maximum grade, the number of questions and the relative weight of each question (set in each question's parameters).

4.14. Click the "**Add**" button, in the lower right-hand corner.

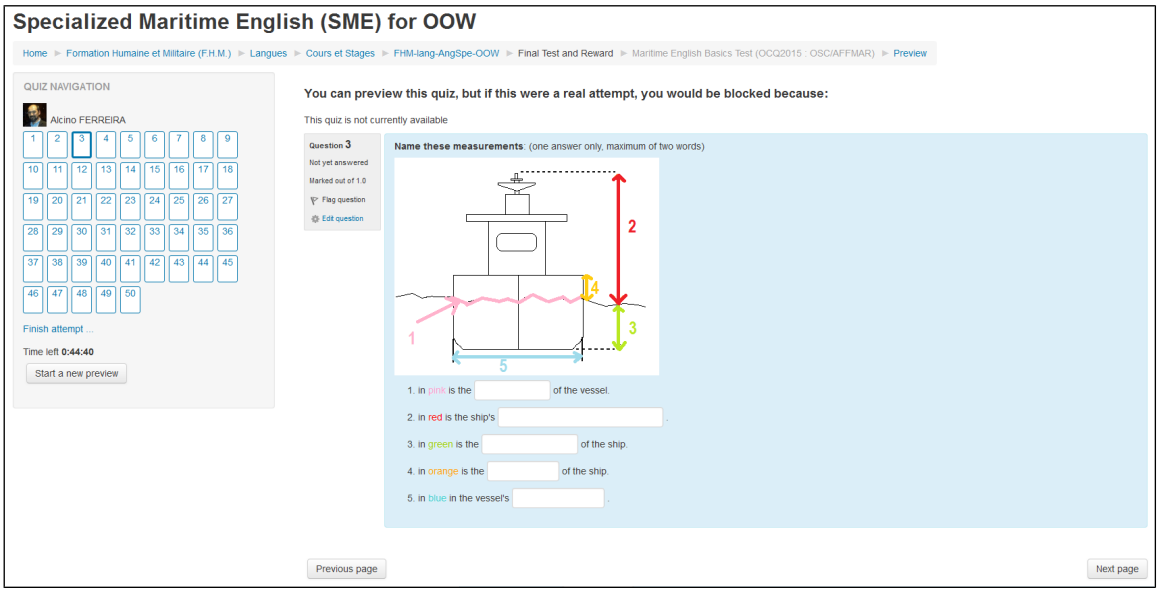
4.15. In the pop-up menu select "**From question bank**", if you would like to select a question that all students will have to answer. A pop-up window will allow you to select which question you want.



4.16. Else, select "**a random question**". A new page will allow you to select one or several question(s) from a specific category. This means that Moodle will create a unique test for each student, by drawing at random from a pool of equivalent questions. Combined with the "shuffle answers" option, and with timing restrictions, this ensures no cheating is possible.



4.17. Once finished, your test should list all questions (fixed or randomized) in the order in which they will be displayed to students. When students click the name of the quiz, it will launch:



5. Implementing tracking of student activity.

5.1. Go back to your "**Course administration**" menu and open "**Edit settings**".

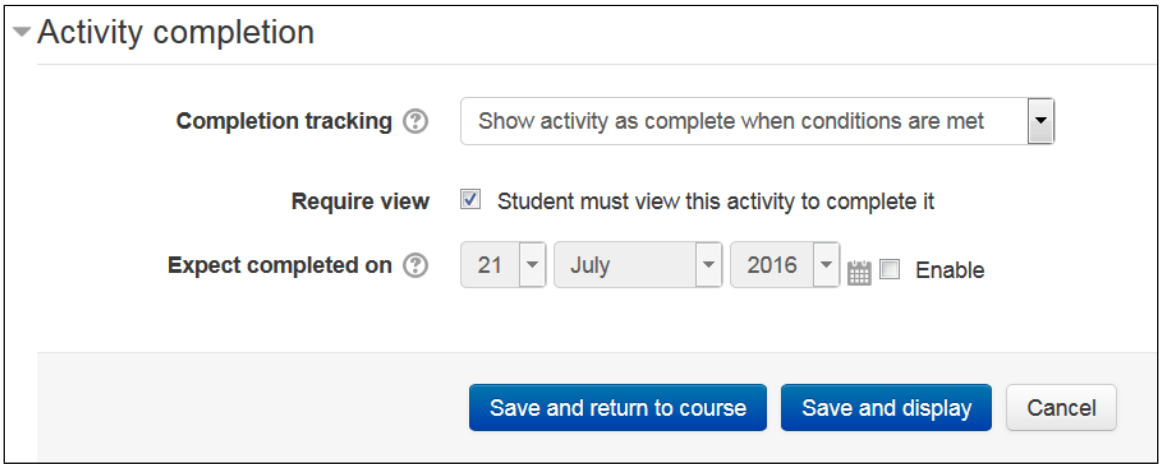
5.2. Scroll down to "**Completion tracking**", and select "**Yes**" as your setting.

5.3. Click "**Save and display**". This will take you back to the course's homepage.

5.4. Turn editing back on, either from the button in the top of the page, or from the "**Course administration**" menu.

5.5. To the right of your video, there is an "**Edit**" link. Click it and chose "**Edit settings**".

5.6. Scroll down to "**Activity completion**" and in the drop-down list, select "**Show activity as complete when conditions are met**", and make sure the "**Student must view this activity to complete it**" box is ticked.

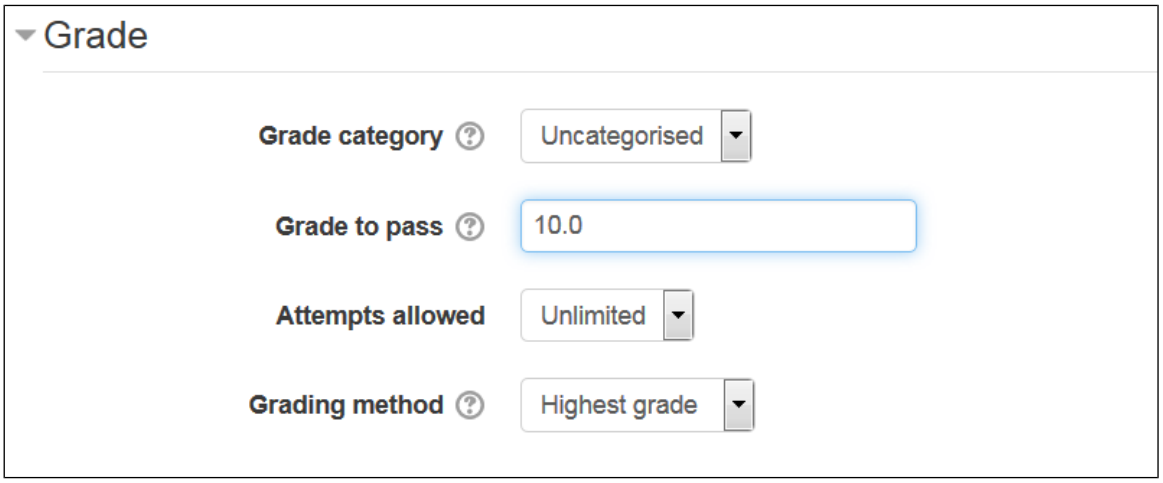


5.7. Click "**Save and return to course**".

5.8. A small box should appear next to your video now. The students will see it ticked once they have viewed the video.

5.9. Now click on the "**Edit**" link next to the quiz, and choose "**Edit settings**".

5.10. In the "**Grade**" section, set the minimum pass grade.

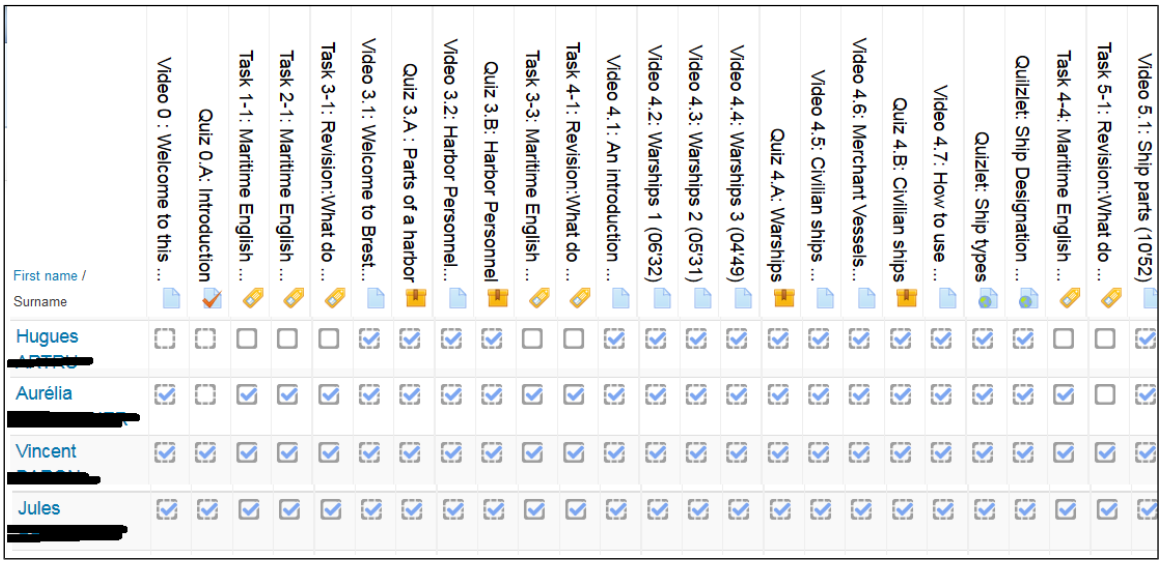


5.11. Go down to the "**Activity completion**" section, and repeat the steps above. Since this activity is a quiz, there are other possibilities for completion such as requiring the student to take the quiz, or even to pass (based on the pass grade which you defined for the quiz. Tick the "**Require passing grade**" box.

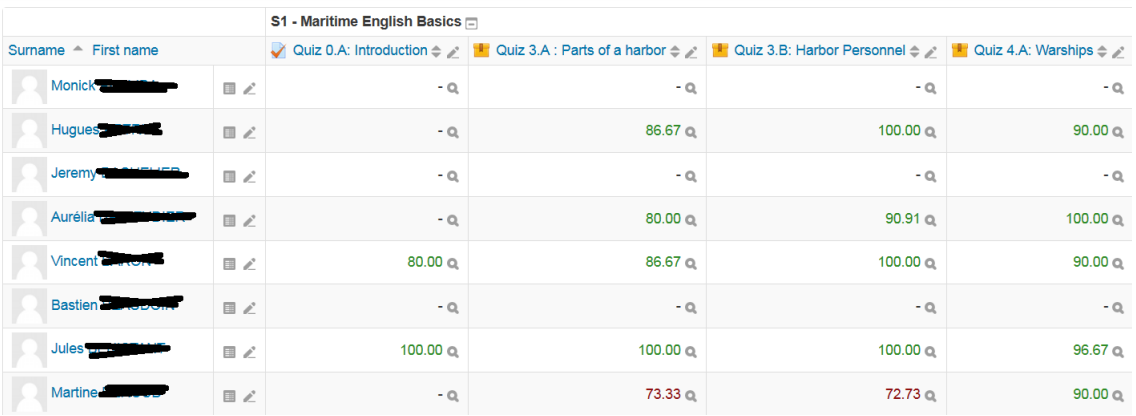
5.12. Click "**Save and return to course**".

5.13. When you want to check if your students have watched the videos and taken the quiz, click the "**Reports**" link in the "**Course administration**" menu.

5.14. Select "**Activity completion**" to see a grid which will display the status of each activity for each student.



5.15. If you are only interested in the grades, select "**Grades**" from the "**Course administration**" menu.



Moodle allows a lot of configuration to suit your needs. Explore!

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Conceptualizing and Planning Simulator Training or Simulation Exercise for Maritime English (workshop)

Jane Magallon, Maritime Academy of Asia and the Pacific (Philippines), janedel54@yahoo.com

Abstract

Simulation training has been used since the start of the 20th century (Kelsey, 2009). Increasingly being used by various industries not only for training but also for assessment. There is a requirement for simulation-based training in the maritime industry (IMO STCW 1978 as amended). According to Sparacino and Della Vecchio (2013), simulators provide a safe yet realistic experiential learning environment. Technological advances have meant that simulators are cost-effective that tailor the specific training objectives. This workshop will help the Maritime English teachers or trainers to conceptualize and design simulation training or exercises in their teaching-learning activities and assessment in the Maritime English course that will achieve the required competence in the 2010 STCW amendments towards gaining communication skills of the learners. Identifying the function and level, simulation-based competence and performance standards are the key factors in the detailing the stage 1 of the simulation program or design. Stage 2 requires advance analysis that includes situational analysis, performance objectives both on the competence tasks and task performance, simulator and simulation level, content organization, and evaluation.

keywords*: simulation exercise, Maritime English competence, communication skills*

Conducting a simulator exercise

Simulation exercse - stages

For Effective Conduct of a Simulation Exercise the 4 Main Stages are

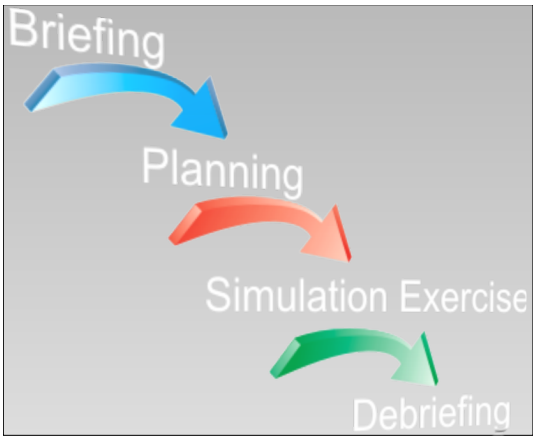
Briefing

Preparation Prior to Carrying Out the Briefing Session

- Use a checklist: to include all necessary information.
- Creating a conducive environment
- Heating/cooling to recreate the real life experience
- Lighting
- Noise: aural cues such as sound of the engine, weather effects etc.
- Vibration

A well planned briefing should include:

- Setting out the objectives of the simulation exercise
- Explaining the simulation scenario
- Explaining the plan for the exercise
- Listing all the relevant parameters, conditions, limits
- Explaining the starting conditions for the exercise
- Informing about any incidents and events which are to occur (optional)
- Clarifying which standard operations/procedures are to be followed
- Assignment of roles and providing detailed instructions for each role as appropriate
- Explaining about the type and format of the assessment and evaluation to be conducted
- Clarification of whether evaluation of performance will be individual/team
- Ground rules for the exercise



External factors

- Where the session falls in relation to the overall course.
- Time of day
- The proceeding activity

Internal factors

- The appropriateness of the simulation exercise to fulfill the objectives of the session
- Group dynamics
- The relationship formed between the instructor and participants

Preparing trainees

- Technically
  - Underpinning knowledge
- Psychologically
- Context of simulation
- Relevance to real life operations
- Making the participants feel comfortable

Varied reactions to the simulation experience based on:

- Age
- Rank
- Years of experience
- Competence
- Nationality
- Incidents on board
- Perception of self
- General attitude towards learning
- Reason for attending the program
- Earlier experiences on a simulator program

Assignment of roles

- Either prior to the course commencement or once information about the participants has been received
- Consider factors such as
  - Age; rank; past experience; apparent confidence level; dynamics of the group
- Role assignment for the first exercise is important
  - Look for a participant who appears confident and balanced with good interpersonal skills and sound technical knowledge
- Setting ground rules for the conduct of the simulation exercise. Focus on the level of seriousness and application required for a real life experience

Preparing scenario

- The simulation exercise is to be viewed as a journey of discovery along a path of accumulated experience rather than
- A unique and unconnected incident.
- The participant should not feel like he is being placed in an experiment but is having an opportunity to hone skills and reflect on competence and performance.
- The focus should be on building a relationship of trust and respect between the trainer and the student.

Facilitating team

- Dependent on:
  - Training objectives; Simulator configuration; cost; availability of trained instructors.
- Ideal team for complex scenarios:
  - An instructor to monitor and control the instructor station
  - An additional instructor for role playing
  - Specially trained psychologist for observation of soft skills
- Briefing for the facilitating team: knowing when and how to intervene in the running simulation and how much information to divulge
- Using a participant as an observer

Planning the Exercise

2 stages of planning for the participants:

- Detailed operational and procedural planning
- Role playing to assign individual roles and detailed instructions to team members before the exercise commences. This must be done "in role" as it would be carried out on board. Forms an important part of the review during debriefing.

Familiarization with the Simulator

- Adequate time for familiarization on the simulator must be given
- Participants may be given a checklist for the familiarization exercise
- The limitations of the equipment to be clearly specified
- By the end of the familiarization exercise the participants should feel confident in the use of all the equipment

Running the Exercise

- Maintaining realism during the exercise
- Finding a balance between intruding into the exercise and letting the simulation run it's course.
- Knowing how much to "load" each participant
- Providing "cues" when required
- Playing different "roles"
- Record keeping and parameters to be noted down during observation
- Deciding whether to "abort" the exercise

Debriefing

- Arguably the most critical part of the simulation exercise
- Provides a platform for evaluating the training objectives, review of performance, reflection on action taken and recommendations for improvements
- Importance of creating a "no-blame" and "wanting to learn" environment

Planning the Debriefing

- Location
- Gathering all relevant data
- Gap period prior commencing the debrief
- Conducting the Debriefing
- Setting the tone
- Structuring the debrief
    - Start with the “lead” role
    - The role of peer evaluation
    - Minimizing the role of the instructor
    - Using the playback facilities and other evidence collected
    - Decision to re-enter the simulator

Elements of Evaluation

Dependent on the nature and objectives of the exercise, factors which are likely to be considered:

- Degree of accuracy
- Time taken to respond
- Procedures and practices followed
- Communication channels used
- Clarity of instructions provided to team members
- Organization of operations/tasks
- Understanding of basic principles
- Application of knowledge to real life situations
- Prioritization of tasks
- Trouble shooting
- Judgment and decision making
- Leadership
- Crisis management
    - Time allocation

        - Ample time to be provided so that the debrief is not rushed but carried out in a peaceful and relaxed manner.
- Summarizing and goal setting
    - A documented and formalized summary of lessons learned and areas of improvement.
    - The importance of closure of the exercise so that doubts are cleared and future direction and action is set.

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Medical Emergency Communication Exercise Peparation (workshop)

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Abstract

The purpose of this workshop is to create recordings and a vocabulary list for medical emergency communication. First, participants form small groups of 2 or 3 members who speak the same non-English native language. Then, each group will receive an English description of an accident/incident that involves a serious injury or illness that requires immediate medical attention. One member of each group, who will play a role of a radio operator onboard a ship, should not read this, and the other member(s) will translate the English description into their native language and report this verbally to the operator, who then must immediately report the emergency in English to another participant chosen randomly from different groups, who will play a role of a VTS operator. In doing so, each speaker will be asked to imitate the typical foreign accent of their own native language. This communication will be performed using portable radios, and be recorded and later be uploaded onto an Internet site so that the participants can utilize them for educational purposes. Once all the groups finish this, the participants will be given a list of words prepared by the author that is meant to be a standard minimal medical vocabulary list and see if any additional words are necessary and if so, these words will be added to the list. The expanded list will also be shared on the Internet.

keywords*: VTS Communication, Medical Emergency*

Instructions to Participants

1. If English is not your native language, find a participant who speaks the same native language and form a group of two. Each group of two will play a role of a ship reporting a medical emergency. If you cannot find a partner, play a role of a VTS operator.

2. Native speakers of English play a role of a VTS operator.

3. For each "ship" group, one member will be given an English written description of a serious medical incident that requires immediate medical attention. He or she first translates this into the native language and provides the information in the native language verbally over the radio to the other member,. who plays a role of an officer on the bridge.

4. Immediately after receiving the medical emergency information, the officer must call the VTS station in English and request for medical assistance or hospital transfer, using the portable radio. In doing so, the speaker is requested to speak with a typical accent associated with his/her native language. This is to mimic real life situations where VTS operators must cope with various foreign accents of English with different degrees of "accentedness."

5. The members of the native English speaker group will take turns receiving emergency calls from ships. Non-English speaking participants without a partner can also play a role of a VTS operator.

6. Upon completion of the entire exercise, each group will be given a list of minimal medical vocabulary prepared by the author and see if any other lexical items are necessary in reporting each medical incident.

Note 1: The exercise will be performed with four portable radios. Two for the ship group, another for the VTS operator group, and the last one for recording. Each session will be recorded and as mentioned in the abstract, will be made available over the Internet together with the expanded medical emergency vocabulary list.

Note 2: Medical incident descriptions in English, if translated into a learner's native language, can be sued to perform a similar exercise in Maritime English classes. If these descriptions are given in English, learners will just read the English, but if given in English, they can be used as a cue to elicit medical emergency communications.

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The Cruise Ship Passenger: the Forgotten Communication Partner? (workshop)

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Abstract

Interproduction: oral communication strategies with non-English speakers

When considering the use of English in a maritime context, the participation framework for communication on board is mostly one that gathers non-native speakers of English or more rarely, native with non-native speakers.

Till recently, the most common perspective on oral communication in an intercultural setting was the interaction between native and non-native speakers, the former facilitating communication for the latter by using 'foreigner talk' [1] , which consists in making discursive adaptations (talking slowly, articulating clearly, repeating, avoiding idiomatic expressions, etc.) by native or competent speakers for the speakers who insufficiently master the language used for communication, namely English. However, foreigner talk is not very suitable for dealing with plurilingual and intercultural communication on board because of its inappropriate participation framework (native vs non-native) and even more, because of the discursive inequality it presupposes and consolidates through its practice.

I therefore would like to explore the much richer concept of interproduction, which has been developed within the field of Intercomprehension, i.e. *the process of co-constructing meaning in intercultural/interlinguistic contexts* [2]. Here, the other is considered as an equal partner in interaction, knowledge and ability to comprehend in order to produce speech allowing the optimal communication between all parties concerned.

The workshop aims at analyzing particular interproduction strategies and processes between English and non English speakers. The core activity will be a face-to-face conversation to be conducted in pairs (different mother tongue or mastered language/different and same language families), which will be observed and discussed by all the participants.

keywords*: cruise industry, officer-passenger communication, oral interaction, intercomprehension, inter production*

Workshop activity

Tourist talk on the ferry

Purpose

Contrary to the crew on board, passengers are not required to master English. In order to find a way to deal with the passengers' lack of communicative proficiency in English and more specifically, his/her poor or non existing receptive and productive competences in oral English, we will concentrate on assessing the usability of English and other languages during interactions with non-English speaking passengers.

Organization

Group of four persons: two actors and two observers, individual instructions provided on a handout. If the composition of the group of participants allows it, a supplementary distinction could be made between interlocutors of a same or different language family.

Setting

Two passengers are on a ferry (Cross Channel ferries, Finland to Sweden ferries, etc.) is on their way to a town. One is a local, English speaking passenger, the other is a foreign passenger with no proficiency in English, who will visit the town for the first time. The local passenger will provide the visitor with information on a 'hometown' of his/her choice.

Instructions

The conversation is initiated by the visitor who wants to know if the town center is close to the ferry terminal, how to get there, where the famous museum X is situated and where would be a good place for dinner.

The local passenger and the visitor will communicate in their mother tongue or other most competent language. Both are allowed to revert to other languages, the local expert is supposed to master English while the visitor is not. However, when it's functional in the communication process, the visitor might even revert to English, using a few words he/she would have picked up from previous exposure to the language.

One observer will be appointed to one actor and will focus on the actor's use of translanguaging, which stands for "the deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named (and usually national and state) languages" ¬3⊏ . Particular attention will be given to the range of languages concerned with the process of translanguaging for both actors and the position of English.

The visitor's use of English will be assessed on the following criteria.

- Is the use of English self-initiated or is he/she borrowing from the local's speech by echoing or mirroring?
- What is the nature of the self-initiated speech? Does it hold terms (computer) or sequences (Thank you, that's very nice) or is it limited to the basic utterances like yes or no and ok?
- Has there been progress in pragmatic or linguistic proficiency of English during the interaction?

Both actors will also be asked to reflect upon their motives to revert to English in the conversation and the frequency of it. Accordingly, the observers will confront them with their proper findings. Finally, the strategies enabling the visitor to comprehend and eventually speak English will be discussed from the actors' and observers' perspective.

As for the intercultural dimension of the interaction, observers will note if an effort is made by both interlocutors to refer to or empathize with the other culture.

Discussion

Each group of four will be asked to gather their findings and report for the whole group on the occurrence, possibilities and limits of the use of English in interactions with non-English speaking persons. Furthermore, they will also try to discover regularities in the translanguaging process: when do we turn to other languages? Are some languages preferred and if so, on what basis? Finally, they will report on the intercultural dimension of the encounter and see if the needs of both actors in the script have been met and formulate recommendations.

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Application of Practical Marine Engineer English (My Practice session)

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Abstract

IMO Instrument such as SOLAS, MARPOL and STCW Convention require to record their particular works for safe operation of ship and protection of marine environment, which are required to follow specific form and contents according to relevant IMO Instrument. Marine Engineer records their work during watchkeeping or daywork in Engine Log-Book. In addition, whenever oil is transferred from tank to tank in Engine room, the responsible Engineer should record the working done in Oil Record Book according to MARPOL Convention. Therefore, English writing availability for Marine Engineer is essential. Meanwhile, they should not only follow the specific guideline developed IMO but also understand the pipe system. Those official records are subject to Flag State Control and Port State Control, therefore, the writing should be accurate and clear. However, it is quite difficult for English teacher who do not have any onboard experience and technical knowledge to teach Marine Engineer. The Purpose of this paper is to introduce class practice and information of English writing of marine engineer in order to carry out his/her duties established by IMO instrument, specifically Engine Log-book and Oil Record Book.

keywords*: marine engineer, engine log book, oil record book, Maritime English*

Introduction

The main role of marine engineer is to keep watchkeeping, operation and maintenance of machinery in engine room. IMO has been implementing International Safety Management(ISM) Code in order to decrease marine casualty caused by human element and works on board are performed according to Safety Management System(SMS) and forced to record them. In addition to the record of works in engine room. Many record books such as Oil Record Book (ORB) and Garbage Record Book(GRB) etc, are required to protect marine environment during opera-

tion of ship by MARPOL Convention. The records are subject to Port State Control(PSC) and ship inspections and should be recorded by English and other language recognized by IMO. Therefore, the ability of writing Maritime English(ME) is getting critically important and demanded by shipping companies. Special ME of marine engineer is relating to technical information. In some instances, it is extremely hard for General English Teacher to educate ME as well as for cadets to understand it. For the purpose to introduce class practice and some information of English writing, especially marine engineer, legal documents which are required by IMO instrument were surveyed. Then, the mutual relationship between the requirements of STCW Convention and the Model Course are analyzed to emphasize the importance of writing availability of marine engineer.

Legal basis of Record Works on Board

Legal basis

1. SOLAS Convention

Reg.28 of SOLAS Convention requires that all ships engaged on international voyage shall keep on board a record of navigational activities and incidents which are of importance to safety of navigation and which must contain sufficient details to restore a complete records of the voyage, taking into account the recommendations adopted by IMO, when such information is not maintained in the ship's log-book, it shall be maintained in another form approved by the Administration.

2. MARPOL Convention

AnnexⅠ, Reg.17 of MARPOL Convention requires that ORB PartⅠ- Machinery space operations that every oil tanker of 150 G/T and above and every ship of 400 G/T and above other than an oil tanker shall be provided with ORB partⅠ. ORB PartⅠshall be completed on each occasion on tank to tank basis if appropriate, whenever any of the following machinery space operations takes place in the ship.

- Ballasting or cleaning of oil fuel tanks
- Discharge of dirty ballast or cleaning water from oil fuel tanks ;
- Collection and disposal of oil residues(sludge) ;

- Discharge overboard or disposal otherwise of bilge water has accumulated in machinery spaces ; and
- Bunkering of fuel or bulk lubricating oil

Annex Ⅴ, Reg. 10 requires that every ship of 400 G/T and above and every ship which is certified to carry 15 or more persons shall be provided with GRB. GRB, whether as a part of the ship's official log-book or otherwise, shall be in the form specified in the appendix to this Annex. Furthermore, Annex Ⅵ, Reg.14.6 requires that ships using separate fuel oil to comply with low sulphur limit of Emission Control Area(ECA) shall carry a written procedure showing how the change-over of fuel oil is to be done. When any change-over operation is completed prior to the entry into ECA or after exit from such an area, the records shall be written in such log-book as prescribed by the Administration.

3. Practical view of seafarer

Engine Room log-book is an official document on board. It is used as an official evidence in case of marine accident in the Court and PSC because all works in engine room are recorded in it. Also, it is used for monitoring the works and taking over the duties officially. Therefore, it should be recorded periodically and accurately.

Requirement of ME for Marine Engineer in IMO Model Course

ME for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine room at the operational level to meet the mandatory minimum requirements for the knowledge, understanding and proficiency in table A-III/1 of STCW Code. Furthermore, the model course 3.17(Maritime English, edition 2015), Part 2.2-Specialised ME for officers in charge of an engineering watch describes the competencies and areas of knowledge so on.

In accordance with the amendment to STCW Convention in 2010, Electro-Technical officers are newly included to Reg.III/7, Chapter III. The minimum standard of competence for electro-technical officers specified in Table A-III/6 requires to use English in written and oral form. Therefore, Part 2.3 – Special ME for Electro-Technical Officers set up in the model course 3.17. The courses above are mainly divided into 2 parts. Firstly, adequate knowledge of the English Language to use engineering publications. Secondly, adequate knowledge of the English Lan-

guage to perform the officer's duties. The competences of them are to be able for candidates to use English in written and oral form.

table 1: Course outline of Special ME of engineer

Course outline	Approximate time(hours)	
Knowledge, understanding and proficiency	Class Hrs	Self-study Hrs
3. Adequate knowledge of the English language to use engineering publications	93	50
D. Use publications of main and auxiliary machinery and associated control system	57	29
E. Use publications of fuel, lubrication, bilge, ballast and other pumping system and associated control systems	6	3
F. Use publications of electrical, electronic and control systems	9	4
G. Use publications of hand tools, machine tools and measuring instruments for fabrication and repair on board	3	2
H. Use publications of pollution-prevention requirements	3	2
I. Use publications of seaworthiness of the ship	3	2
J. Use of publications of preventing, controlling and fighting fires on board	3	2
K. Use publications of life-saving appliances	3	2
L. Use publications of monitoring compliance with legislative requirements	3	2
M. Use publications of personnel and ship safety		
14. Adequate knowledge of the English language to perform the officer's duties	56	29
O. Use internal communication systems	3	2
P. Maintain a safe engineering watch	9	4
Total	105	56

Detailed teaching syllabus considering the role of engineer and electro-technical officer are detailed in the Model Course. Particularly, the teaching syllabus of engineer in first part includes writing the maintenance/repair records and spare parts application form concerning each main and auxiliary machine on board. However, electro-technical officers are not required to carry out watchkeeping in engine room, therefore the writing competence the same as engineer are included in syllabus.

table 2: Course Outline of Special ME of Electro-Technical Officers

Course outline	Approximate time(hours)	
Knowledge, understanding and proficiency	Class Hrs	Self-study Hrs
8. Adequate knowledge of the English language to use engineering publications	48	25
9. Use publications of mechanical engineering systems	2	1
10. Use publications of electrical and electronic control systems	10	5
11. Use publications of generations and distribution system	9	5
12. Use publications of automation and control systems of main propulsion and auxiliary machinery	12	6
13. Use publications of computers and computer networks on ships	2	1
14. Use publications of bridge navigational equipment and communication systems	13	7
15. Adequate knowledge of the English language to perform the officer's duties	56	29
16. Use English in written and oral form to describe electrical and electronic systems	12	6
17. Use English in written and oral form to describe generators and distribution systems	10	5
18. Use English in written and oral form to describe automation and control systems of main propulsion and auxiliary machinery	15	8
19. Use English in written and oral form to describe computers and computer networks on ships	3	2
20. Use English in written and oral form to describe bridge navigational equipment and communication systems	16	8
Total	104	54

Meanwhile, the syllabus of engineer in second part emphasizes on communication in performing engineering duties. Therefore, log-book writing is broadly connected with the role of engineer and teaching syllabus of the Model Course. Practically writing ability of engineer is identified as highly important in special ME in both IMO instrument and the Model Course.

Approach for Improvement of Writing Competence

Writing Engine Room log-book

On board works carried out repetitively by the maintenance plan developed according to SMS required by ISM Code. Furthermore, the writing skill of log book and other records are concerned as an essentially important competence in modern shipping industry because the documentation of majority of onboard activities are required by IMO instrument. The purpose of writing by engineer on board are mainly to record works done for ship safety and for marine environment prevention. Special ME teachers are extremely hard to make cadets understood. Meanwhile, the cadets also face difficulty to understand the class and utilize the terminology effectively and efficiently they learned because they have not experienced yet. Therefore, the construction and development of detailed syllabus are quite important and time consuming job. In order to help cadets to understand and follow easily works on board, additionally in order to provide the standardized education, ME book(Kim. et al, 2013)) developed for high school students by regional education administration, Republic of Korea and a few writers published Maritime English book (Kang. et al, 2014). Both of them focus on writing log-book and ORB in common. The contents satisfy with the syllabus structure and provide very useful example expressions for log-book and ORB. However, some of expressions are outdated. Besides, do not reflect modern ship machinery and amended symboleography of ORB. However communicative dialogues such as ship inspection, bunkering and maintenance works are very useful to exercise speaking and listening. There are still improvements needed for books, for example, commonly visual figures and graphics are desired to help cadets to approach simply and easily.

Furthermore, there are some findings through the analysis of two books. Works in engine room are able to be grouped into some common verbs, which are frequently used no matter what machine is subject to work. Example verbs sorted according to machine and compartment are presented in Table 3.

By using the table below, cadets could not image works of individual machine in engine room, but also practically use verbs and compartment of machine adequately. Furthermore, individual cadet develop his or her own vocabulary and expression.

table 3: The analysis of common verbs according to machine and compartment

Machine	Compartment	Work
Main Engine	Bed and Block	Overhaul/Replace/Inspect
	Cylinder Cover	Overhaul/Replace/Inspect
	Piston	Overhaul/Replace/Inspect
	Cylinder Liner	Overhaul/Replace/Inspect
	Crankcase	Inspect/Measure
	Bearing	Overhaul/Measure/Adjust
Boiler	Burner	Overhaul
	Tube	Clean/Repair
Purifier	Separation disc	Overhaul/Clean/Replace
	Driving shaft	Overhaul/Replace
	Friction lining	Overhaul/Replace
	Gravity disc	Change

Writing of Oil Record Book

There are many records required by shipping company and IMO instrument. As an example of them, ORB is considered as the important document of engineer in charge of the operation of 15 ppm oily water separator. ORB is written by Code symbolized by alphabet letter, Item symbolized by number and Records. The activities carried out regarding oil transference are recorded according to MARPOL Convention. The inspection of ORB is the part of PSC and IMO also has considered the appropriate records by engineer on board. Therefore, Marine Environment Protection Committee adopted the Guidance for the Recording of Operations in the ORB – Part I-Machinery Space Operations (all ships) at the 61 session on 1 October, 2010. IMO invited stakeholders including ship operators, surveyors and PSC officers to encourage implementation of the Guidance.

The Guidance is quite useful resource when both ME teachers, who do not have any seagoing experience and have it, educate writing of ORB. The thing found by analysis of the guidance is that repetitive phrases are used, for example *"water drained from name of Tank xx ㎥ retained, to name of Tank retained"*. Even a cadet whose English level is beginner could memorize the phrase and write ORB simply and accurately. The education effect could be maximized if diagram of bilge and oil residues system in engine room is collaborated for cadets to help under-

stand transferences of fluids. Furthermore, the development of scenarios relevant to real activities on board are required in order for cadets to apply their understandings, which might be developed through cooperation with shipping companies and PSC officers etc.

In Korea Institute of Maritime & Fisheries Technology(KIMFT), writing exercise is accomplished with Engine Room Simulator(ERS) training. The cadets transfer bilge and oil residues by using ERS in accordance with written scenarios. Meanwhile they write their work done on ORB. This activity could be either the part of ERS or ME class depended on the construction of syllabus.

Conclusion and suggestion

Both cadets who do not have any experience on board and general English teachers have quite difficulties to learn Special ME. Most of works of marine engineer are required to be recorded in accordance with IMO instrument and domestic laws. In particular, works taken place on board are repetitive, therefore, writing skill of marine engineer can be improved by verbs frequently used in common. IMO instrument, especially MARPOL Convention, requires a variety of records respective to marine pollutant. Particularly, oil transference in the ship shall be recorded according to MARPOL Convention. Therefore, IMO developed the Guidance for the purpose of promoting a unified implementation. It can be used for even general English teacher because the Guidance uses very simple phrases. Furthermore, progressive research for the development of standard phrases for marine engineer in the future is needed to improve effective and efficient communication.

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"Use of English" in the Maritime English Classroom (My Practice session)

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Abstract

Striking the right balance between the general and the specific has always been a key aspect of ESP course design and has generated a good deal of research. Huckin [1], for example, argues that classroom instruction should emphasize the teaching of learning strategies rather than focus on specific linguistic forms and uses. Research has shown, furthermore, that previous linguistic competence in English for general purposes (EGP) very much determines the success of students taking ESP courses (González Ardeo [2], Jurkovič [3]). Often, this duality has been addressed by dividing the syllabus into a general English component, for which general English methodologies are frequently used, and a technical component, which covers the specific lexicon, discourse structures and conventions of the specialized discourse. This paper presents an incipient experience in maritime English (Bocanegra-Valle [4], [5)]) course design at the University of the Basque Country, whereby, instead of an EGP coursebook, a new set of materials, compiled in Herrera [6], are used. These are organised around grammar and use of English sections, but are developed exclusively within a maritime English context.

keywords: *Maritime English, use of English, teaching practice, grammar*

Introduction

Maritime English can be defined as "the English language used by seafarers both at sea and in port and by individuals working in the shipping and ship building industries" (Bocanegra-Valle [4], [5)]). Trenkner [7] defines it as "all those means of the English language which, being used as a device for communication within the international maritime community, contribute to the safety of navigation and the facilitation of the seaborne trade." It includes highly specialized terminology and conventionalised discourse structures. Amongst these, intra-ship or on board communication, as well as external (ship-to ship or ship-to shore) communications related to

seamanship, manoeuvring, cargo work or meteorology, for example (Bocanegra-Valle [5]). In 1995 the International Maritime Organisation (IMO) adopted English as the official language of the sea, and approved the Standard Marine Communication Phrases (SMCP), a set of conventionalised phrases to assist greater safety to navigation and conduct of ships, and to standardize the language used in communications for navigation, at sea and in port approaches, harbours, waterways and on board with multi-lingual crews.

Knowledge of Maritime English is required by International legislation, such as IMO's Convention on Standards of Training, Certification and Watchkeeping (STCW95) and the International Convention for the Safety of Life at Sea (SOLAS74), to guarantee safer ships, the protection of the environment, and for enhancing the efficiency of global business operations where the ship and the sea are crucial elements (Cole, Pritchard and Trenkner [8])

The general vs the specific: EGP and ESP

Huckin [1] argues that classroom instruction in ESP contexts should emphasize the teaching of learning strategies rather than focus on specific linguistic forms and uses. Hutchison and Waters [9] argue that we should be teaching not the surface aspects of specialised discourse, but the general linguistic competence that underlies such learning. Research has shown, furthermore, that previous linguistic competence in English for general purposes (EGP) very much determines the success of students taking ESP courses (González Ardeo [2], Jurkovič [3]).

Striking the right balance between the general and the specific has always been a key aspect of ESP course design. Often, this duality has been addressed by dividing the syllabus into a general English component, for which general English methodologies are frequently used, and a technical component, which covers the specific lexicon, discourse structures and conventions of the specialized discourse.

Next section presents a set of new materials that attempt to reconcile general English contents, mainly grammar, with maritime specific vocabulary and discourse structures.

Use of English for maritime students

Use of English for Maritime Students [6] is a monolingual English language textbook aimed at students of nautical sciences. Its aim is to help students improve their grammar and maritime English vocabulary, as well as to help them improve their exam skills.

It includes the following components:

- Revision of essential areas of grammar at B2 level
- Use of maritime vocabulary and authentic texts throughout the book
- Exercises and examples designed within a maritime context
- Training in the skills and techniques required for Paper 3 of the FCE examination
- It contains 6 units, each of them comprising two sections: Focus on Grammar and Focus on Vocabulary
- It includes a glossary of nautical terms and an answer key

The contents are the following:

- Grammar topics: Verbs and tenses: Present simple and progressive, past simple and progressive, present perfect simple and progressive, past perfect simple and progressive, the future, passive voice and causative structures.

- Maritime topics: Parts of the ship, forming verbs from nouns and adjectives; positions on a vessel; forming nouns from verbs and adjectives; prepositions and Standard Marine Communication Phrases; responsibilities on board; tasks and duties; positions external to the vessel; vessel's motions; ship handling

The "Fous on Grammar" exercises are designed to promote reflection on the usage of the various tenses or passive/causative structures. Students are required to provide an example for the various usages that the verbal structure has or analyse sentences and decide which usage they illustrate. They also have to complete more traditional types of exercises like "gap-filling" or "passive transformation." Below is an example of a transformation type of exercise:

> • *Complete the second sentence so that it has a similar meaning to the first sentence, using the word given. Do not change the word given. You must use between two and five words, including the word given.*

They are ordering larger and larger containerships nowadays.

ordered

Larger and larger containerships …….. nowadays.

Ships may jettison cargo when in danger of capsizing.

Jettisoned

Cargo ……..in danger of capsizing

The Maritime-specific vocabulary is developed through word-building gap-filling exercises, matching, multiple choice or error-correction exercises. Sentence error-correction exercises are an important part of the book, since the ability to notice and correct errors is a productive task that enhances language awareness. Some of such exercises are reproduced below:

EXERCISE 4 **Getting familiar with SMCP**

➢ *Complete the SMCPs below.*

1. Stand by	a. lifeboat.
2. We will let go both	b. three shackles.
3. Let go	c. are let go.
4. Let go no. 3	d. anchors.
5. Sea anchor	e. is let go.
6. We will let go	f. all aft.
7. Let go aft	g. spring.
8. Let go the towing	h. both anchors for letting go.
9. Two liferafts	i. and report.
10. Let go sea anchor	j. line.

EXERCISE 5 **Change of conditions and SMCPs[5]**

Complete the SMCPs below with the appropriate verbs or verbal phrases from the box. Most of them have to be used more than once.

change	improve/deteriorate	increase/decrease	fall/rise	reduce
increase/decrease/be variable		drop/rise/be steady	veer/back	restrict

1. The wind in your position is expected to .....
2. Gale warning. Wind at 06.00 hours UTC in area Finisterre from direction SE and force Beaufourt 4 .....to NE.

EXERCISE 3
*For questions **1-19**, read the text below and look carefully at each line. Some of the lines are correct, and some have a word which should not be there. If a line is correct put a tick on the line. If a line has a word which should not be there, write the word on the line.*

Propulsion Plants

1. The shipowner has a fairly wide range of the propulsion units from which	.....
2. to choose. The steam turbine with its smoothness and reliability of	.....
3. operation it is a choice for some large fast passenger liners. The gas	.....
4. turbine, very light and easily to removed for maintenance, is used in	.....
5. some fast vessels such as container ships.	.....
6. The diesel engine is becoming the popular for practically all vessels,	.....
7. because of low fuel consumption provides added deadweight and cubic	.....
8. capacity for cargo. This type of propulsion unit it is almost exclusively	.....

The book may also be used for self-study in conjunction with the answer key.

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Productivity Reflected on the Stage & Papers (My practice session)

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Abstract

Considering four main skills in the process of L2 learning, speaking and writing are classified to be productive skills as learners are to produce language in both oral and written forms, unlike receptive skills of listening and reading where the learners do not need to produce but receive and understand the information. It is a common requirement of both shipping companies and IMO that prospective officers-regardless of their working space on board i.e. bridge, engine room – are to be competent and effective particularly in speaking and writing skills in advance their graduation. In this study, the progress of senior engine cadets (in the fourth year) on writing and speaking is aimed and observed via their oral presentations and written reports. Each one is to make a written report on submitted /choosen themes to be orally presented.Themes are based on either marine engineering or social perspective of seafaring. Following assignment, gathering info on their topics cadets are required to send drafts to the lecturer to get suggestions. Therefore the cadets have the opportunity to re-design or make corrections in their reports . Pre and post questionnaires with open ended questions are utilized to reflect their progress as a language learner; terminology, grammar, writing style and also as a professional; their feelings (excited, anxious, tedious, relaxed, neutral etc) before and after presentations on behalf of their self-efficacy.

keywords: *Productive skills, senior engine cadets, progress, oral and written presentation, theme based speech, self efficacy*

Introduction

Knowledge plays a crucial factor determining your power in our present era. Thus tools considered as knowledge sources have been varied ,offering mounted up info with immediate availability just in the tip of our fingers .

Possessing, processing and facilitating knowledge constitutes quite demanding and subtle process in the progress of learners regardless their age,nationality and profession. How much knowledge you posess is generally justified how competent you are in knowledge transfer in other words your ability in transmitting your knowledge is the presumed medium to equate your potential knowledge storage. Verbal communication is conducted via 4 main skills; reading and listening are considered to be receptive skills enabling the individual getting message/ information, speaking and writing are classified as productive skills which are utilized for conveying the message/ information. Therefore it is inevitable to develop productive skills leading competency and efficiency in briefing people ,making a speech in front of a small/big group of people.

Focusing on senior cadets' needs concerning not only their prospective profession but their social status they will be recruited as the management level of the crew, this prospective situation puts this ability to be gained and developed urgently.

The International Convention on the Standards of Training, Certification and Watchkeeping solidly defines the recruitment and employment of all seafarers as;

> *'seafarers should be able to be capable of addresing both the crew and passengers in clear standard English to avoid losses in human lives or cargo '.*

Aim of the practice

Speaking, especially in front of the crowd mostly constitutes a problem for many individuals, making the speaker feel discomfort, uneasy unless the speaker is trained to be an orator. However writing skill has been found to be relatively easier than speaking as the learner has the opportunity to correct/reform the statements.

Engineering requires a thorough combination of theory and practice. Marine engineers are not only expected to be competent and effective in holding knowledge but also conveying via speaking and writing. Marine engineering cadets have been exposed to highly intensive curriculum during their theoritical training at the faculty unfortunately lacking of a lecture consisting of speaking, briefing people in L2 , which is an ability to be developed prior to graduation. A c/e, s/e, t/e and surely even f/e are to brief, transfer knowledge to the ones in operational level and others (crew members, inspectors, surveyors, CG staff) for a short or significant period of time. Thus it is inevitable to gain and support this ability to make an informative and instructive

speech to the listeners. This practice aims to enrich prospective marine engineers with strategies for both speaking in front of the crowd and writing reports on their profession.

Sequences of the practice

This practice consists of four sequences namely; assignment, production, correction and performance.

Assignment

Fourth grade (senior) engine cadets are required to choose a theme, related with marine engineering or social issues on board. Lecturer leads them to consider interesting, challenging, different, eccentric, troublesome issues they experienced whilst on board practice. Cadets either choose a theme as they wish or if not, they are assigned a theme should they have difficulty in fixing one. Each assignment is to be prepared and conducted single –handed and on different topic. Within a –three week- duration they are to make search via hard or software knowledge sources to prepare a written report and oral presentation. They are free to choose another one should the assigned one be found not interesting.

table 1. Sample of presentation topics

PMS in e/r
Being a seafarer with cons and pros
Common troubles on training
Working on automated vessels cons&pros
Most frequent troubles, disorders in e/r
Difficulty of being a woman seafarer on board
Types of intelligence, regarding marine life
Checklists for e/r use
Perils at sea
Fantastic vessels; the Titanic & the Queen Mary
Drills conducted in e/r

Production

Cadets gather info making use of specific web-sites, their personal data obtained during training. Prior to starting presentations and preparing written reports, six sessions of Maritime English lecture are designed and implemented covering the issues below;

For oral presentation

- Importance of non-verbal communication, i.e.gestures, mimics, eye contact prior to giving a talk
- Greeting people, introducing yourself
- How to draw attention of the crowd on the topic
- How to start topic,giving examples,finalizing speech

For writing report

- How to prepare a draft on a theme,
- How to get main idea, rephrase,
- Cues with effective statements for presentation prorams and also written assignment.

Correction and enrichment

As cadets pile up the information on the topic ,make a draft on their assignment and send what is gathered (First e-mail) .Lecturer reads and makes suggestions to move towards better 'production' .

They are to compile all info on ppt/ prezi form for oral presentation and word format for submitting written report. Lecturer gets e-mails ,carefully looks through each one and makes necessary suggestions and hints at making corrections (Second e-mail) They facilitate and consider them to present their findings more efficiently in their reports .

Performance

Each cadet has 10-15 minutes to perform on the stage; make a speech in front of their classmates. They make use of presentation programmes, visuals such as diagrams, short films, videos to enrich their presentation.

table 2: List of criteria for oral presentation

The use of media, effective use of presentation programmes
Social interaction with the class; Greeting people, eye contact, gestures, mimics
Timing, punctuality
Pronunciation,intonation, spelling
Accuracy& fluency of speaking
Competency in topic, complete preparation, having confidence while conveying info

Just after they finish up with their performance on the stage they are handed out a questionnaire with open ended questions to unveil three perspectives reflecting its contributions on the side of cadets' progress regarding individual especially self efficacy basis, language and their prospective profession .

table 3: Questionnaire for the practice outcomes

Before presentation I was feeling……..	Afterwards I have felt…….
Regarding English language I believe this practice gained me	
Regarding my profession, I believe this practice gained me	

Findings and Conclusion

Fifty-five senior cadets attending Maritime Faculty of İstanbul Technical University participated this practice . They reflected their pre and post feelings, sensations by means of questionnaire with open ended questions which are in their mother tongue so there would not be any misinterpretation. They are required to entitle their feelings before and after presentations. Values in the table indicates time of mention. Feelings from high frequency to low frequency are listed to visualize their own perspective.It is observed that cadets' pre feelings with high frequency reflect cadets' negative attitude. They expressed their feelings as; anxious, stressed, worried, uneasy,frightened,panic concerning pre presentation. Focusing on the second column- post feelings- feelings with high frequency belong to positive ones i.e. relaxed, contented, peaceful, self confident etc. The feelings of worry, anxiety, stress were replaced with relax,confidence and contentment. Significant shift has been built up towards a fine self efficacy.

table 4: Cadets' pre & post feelings

Pre Feelings		**Post Feelings**	
Anxious& stressed	45	Relaxed	40
Worried & uneasy	21	Contented & happy	20
Excited	10	Peaceful	18
Frightened	8	Self confident	15
Panic	2	Sucessful	12
Shy	2	Knowledged	8
Contented	3	Satisfied	5
Prepared	8	Determinent	5
Ambitious	2	Charismatic	2
Self confident	4	Still anxious	4
Responsible	2	Unsuccesful	1
Relaxed & comfortable	2	Boring	1

Considering the linguistic progress, cadets' pointed out this practice contributed their language progress concerning the issues of;

- Awareness; facing with in/competency in English, need to improve English or gain self confidence
- Vocabulary; new words terminology, new patterns,structures,
- Speaking skill; fluent speaking, responding quickly, pronunciation,coping with speaking phobia
- Reading skill; skimming and scanning, being selective
- Writing skill; sentence formation, rephrasing the statements, writing shortly for oral presentation and formal ,long paragraph writing suiting to word format.

Professional outcomes based on cadets' statements are placed into the categories of such:

- Awareness on Professional topics
- 'Getting knowledged by means of both their own topics and also the other cadets'
- 'Getting information ,cues for preparation and making presentation.'
- 'Refresh my professional knowledge .'
- 'Making research on an interesting topic.'
- 'Feeling knowledged which is good for an anxiety control.'
- 'Feeling responsible enriching my self expression abilitye able to make a speech in English to the crowd.'
- 'Feeling and rebuilding self confidence ,self efficacy. '
- 'Listening to classmates who are more knowledged than me. '
- 'A sort of preparation for COC regarding maritime English!'

To sum up, as a lecturer I personally observed that cadets have made progress regarding both linguistic and professional aspects. When handed over the assignment, significant number of the cadets were reluctant and not aware they would feel comfortable on the stage, suggesting why not only the written part? After being able to brief to the classmates, they have self efficacy. What is more they have realised their potential on making speech, built-up/ raise their awareness in terms of self confidence, self efficacy towards making theme-based speech in L2.

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Lexico-grammatical Patterns in SMCP and VTS Textbook Used in Korea

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Abstract

The present study intends to examine how closely the textbook used for VTS operators in Korea has adopted and utilized the SMCP. To do so, the study analyzes data composed of the Korean VTS textbook and the SMCP, focusing on lexicogrammatical patterns. In analyzing the data, both quantitative and qualitative approaches were adopted. It was found that the K-VTS often employed a polite marker of making a request, *please*, although the SMCP shows the general avoidance of politeness formulas in the imperative to eliminate ambiguity; non-referential *It* and *There* as subjects, demonstrative pronouns, *it*, *this*, and *that*, and deictic *there* were more often used in the K-VTS than in the SMCP; frequently used words, *assistance* and *expected* in the SMCP rarely or never occurred in the K-VTS; *could* and *may* that are indicated not to use in the SMCP was employed in the K-VTS; presumption words, *suppose* and *likely* that are also categorized as an avoided word class in the SMCP were used in the K-VTS; the Present Perfect tense used rarely in the SMCP was often employed in the K-VTS.

keywords: *SMCP, Korean VTS Textbook, linguistic features, lexicogrammar*

Introduction

Despite an exponential increase of studies in individual English for Specific Purposes (ESP) areas, Maritime English (ME) as a member of the ESP family has been largely neglected by ESP researchers, thus remaining an area that needs to be brought to light for the sake of ME teachers and students alike. As a researcher and teacher of ME, I have encountered many ESP/EFL students who had particular linguistic needs for the particular types of documentation and discourses that they will use in their potential communities of practice. Teaching those students, the biggest challenge was having proper course books that could meet their needs.

There are few ME course books commercially available in Korea. In most cases, individual ME teachers come across their own course materials based on their teaching and learning experiences, assuming the materials will provide what the student needs. This gives a big burden on teachers especially who never taught ESP courses before, so-called general English teachers [1] [2]. In other words, course books and/or materials are not openly discussed, thus raising questions such as how much and how well the course book reflects students' needs as well as their potential communities of practice. In this context, the present paper aims to examine an English textbook used for Vessel Traffic Service (VTS) operators in Korea (hereafter, K-VTS). More precisely, it investigates lexicogrammatical patterns of phrases in the K-VTS, in comparison with those in the Standard Marine Communication Phrases (SMCP).

Developed by the IMO sub-committee on Safety of Navigation, the SMCP is a collection of standardized English phrases for navigational and safety communications from ship to shore and vice versa, ship to ship, and on board ships. It was compiled "to assist in the greater safety of navigation and of the conduct of the ship" (SMCP: 1). Since its compilation, the use of the SMCP has been required among officers in charge of a navigational watch on ships of 500 gross tonnage or more. VTS operators who are responsible for coordinating the movement of all vessels have been also trained with a textbook that was designed to be supposedly as close to the SMCP as possible to communicate with a ship in a satisfactory manner.

This study examines how closely the K-VTS has adopted and utilized the SMCP. In doing so, the study analyzes the data composed of a textbook used for VTS operators in Korea and the SMCP, focusing particularly on lexicogrammatical patterns

Literature Review

Lexicogrammar

The *Encyclopedia of Applied Linguistics* [3] defines lexicogrammar (or lexico-grammar) as "a level of linguistic structure where lexis, or vocabulary, and grammar, or syntax, combine into one" (p. 3367). According to this definition, lexicogrammar involves three elements: lexis, grammar, and the relationship between the two. Although in Linguistics, Systemic Functional Linguistics (SFL) and Corpus Linguistics (CL) in particular, researchers and scholars have manifested more or less different perceptions of and approaches to lexicogrammar, they have a general consensus on the idea that lexis and grammar are interrelated, an idea that was triggered

by Firth's [4] statement, "[w]ords must not be treated as if they had isolate meaning and occurred and could be used in free distribution" (p. 18). Due to this nature of lexis and grammar, lexicogrammar approach to discourse has gained real popularity over the last few decades. The tradition of lexicogrammar approach to texts or discourse in linguistics derived from Holliday's SFL and more recently from CL. In SFL, the term lexicogrammar is used to emphasize the interdependence of and continuity between lexis and grammar. This notion is well presented in Figure 1 below in which Halliday and Matthiessen [5] demonstrate the relationship between lexis and grammar as continuum with lexis on one end and grammar on the other:

fig 1. Grammar-lexis continuum[1]

To put it in Gledhill's [6] terms, lexis and grammar are not different in nature, but rather form a unified stratum in the language: lexis is "a structured system of signs which serves to organize the vocabulary of a language," and grammar is "a structured system of choices which serves to organize sequences of signs into texts" (p. 59).

The view of lexicogrammar as continuity between lexis and grammar has played a crucial role in CL, as analyses of corpus data center around lexis, grammar, and the relationship between the two. In CL, the notion of lexicogrammar is characterized in many different terms such as collocation, colligation, lexical bundle, multiword units, prefabricated units, prefabs, and phraseology. A number of studies in CL have been devoted to eliciting lexicogrammatical patterns in texts and discourse although each study shows its own focus of concerns regarding to the relationship between lexis and grammar and lexicogrammatical patterns [7][8][9][10][11]. They believe that "there are systematic association patterns between grammatical features and classes of words"[7].

Corpus-based linguistic research has attracted ESL/EFL teachers and students alike with its ability to handle a greater amount of texts at once and to provide "a much more solid foundation for descriptions of language use" [12]. Concordance lines of a word (namely node) from a corpus, which is one of the key products in the course of any corpus study, for example, provide

1 Adopted from Halliday and Matthiessen (2004, p. 43)

lexicogrammatical profiles of the word [13], which helps language learners understand lexicogrammatical patterns associated with individual words in natural contexts.

Gledhill [6] lists some specific properties of lexicogrammatical patterns such as a LG pattern is a predictable but also productive sequence of signs, which as a whole shares a stable, coherent frame of reference; a LG pattern can be composed of lexical signs, or more abstract signs, including grammatical morphemes and constructions; and a LG pattern is composed of permanent 'pivotal' signs and a more productive 'paradigm', a feature which allows the pattern to be reformulated and integrated into other patterns and thus into on-going discourse.

Baring this in mind, this study investigates lexicogrammatical patterns in the SMCP and a textbook used for VTS operators in Korea.

Standard Marine Communication Phrases (SMCP) and Vessel Traffic Service (VTS)

From the inception of IMO in 1973, accidents that had significant consequences triggered a certain initiative among the people concerning maritime safety, to amend and improve the international regulations on safety at sea. According to Rosso [14], "Scandinavian Star" accident in 1990 can arguably be considered as the projection of the SMCP, in which one of the major causes that contributed to the large number of casualties was the poor communication between the crew and the passengers due to the crew's inadequate knowledge of the English language that had been the common language in the international maritime community.

Led by Peter Trenkner, the SMCP project aimed to serve as a true "survival kit" in the Maritime English communication. Introducing the SMCP, the IMO resolutions A.857 (20) and A.918 (22) clearly recommend that "use of the IMO SMCP should be made as often as possible in preference to other wording of similar meaning; as a minimum requirement, users should adhere as closely as possible to them in relevant situations." (p. 127)

SMCP consists of two parts corresponding to the external and on-board communication requirements for not only mariners, but also pilots and port staff. One of the important contributions offered by the phrases is the chapter dedicated to Vessel Traffic Services (VTS) communications which was not included in the previous Standard Marine Navigational Vocabulary (SMNV). The wide-spread implantation and continuous growth of VTS all over the world demanded the necessity of this type of communicational phrases.

One of the main goals for compiling the SMCP is "to **standardize**[2] the language used in communication for navigation at sea, in port approaches, waterways and harbours, and on board vessels with multilingual crews" (SMCP: 1). For this reason, the SMCP intentionally offers a simplified version of ME using standardized structures. In other words, it does not cover a vast range of language knowledge including vocabulary, grammar, discourse structures, etc., which are required for a good communicator. Based on the IMO SMCP and the previous studies on the phrases [15][16], some linguistic features of SMCP can be summarized: 1) A block language is applied, which often omits the function words such as the, a/an, and is/are, as done in seafaring practice; 2) Synonyms are avoided giving preference to one member of the synonymous word group; 3) Contracted forms are avoided; 4) Fully worded answers to yes/no questions are provided; 5) One phrase for one event is provided; 6) The corresponding phrases are structured according to the principle; 7) Politeness formulas in the imperative are generally avoided; 8) Latin-based words are preferred to Anglo-Saxon origin ones; 9) The past tense and the present perfect tense are rarely used; 10) With the use of formal, Latin-based words and phrases, the tone of the phrases are rather authoritative.

Utilizing the phrases as often as possible should be expected in the working field on board vessels as well as between ships and ship to shore, especially among the practitioners whose first languages are not English. VTS operators are no exception. According to the VTS Operator Model Course V-103/1 approved by IMO, the award of a VTS Operator Certificate and endorsement to act as a VTS Operator should be achieved by successfully undertaking a series of modules, among which language module ranks top. Furthermore, with English as the working language in the worldwide maritime area, IMO recommends that SMCP should be used as often as possible. Hence, it is natural to expect that the VTS communication textbooks should be congruent with the SMCP in wording, structure, and principles.

Despite the efforts of IMO's affiliated organizations and professionals to promote the use of SMCP at sea, the question, "Is SMCP used at sea?" (Alter, 2007) was often asked. Based on the perspective that the SMCP must play a critical role in maritime communication where intelligibility is prioritized, this study scrutinizes the phrases in a textbook used for VTS operators in Korea in comparison with the SMCP.

2 Intentionally bold-faced by the author.

Method

Data

The data for our study were retrieved from a K-VTS and the IMO SMCP documents. Korean VTS textbook, titled General Maritime Communication English was issued by National Federation of Fisheries Cooperatives, Korea in 2000, and adopted for training Korean VTS personnel to meet the qualifications in communicating with mariners. The book consists of 3 chapters and Appendix. First chapter was titled as "General Maritime Communication English," second, "Information Exchange in Context," and third, "Maritime Accidents in Context." For each phrase, Korean expressions were first provided and then English translations followed. All English translations were collected for the study. The number of running words was 5,742 in total.

In order to survey the contents of the K-VTS and SMCP, we compiled them into two separate data files: K-VTS and SMCP. Unlike the K-VTS, which is composed of intact sentences including proper names (e.g. Jeju, Suhyup-ho, Wando) and concrete data (e.g. 20 degrees, 3 miles), the SMCP presents merely patterns without specific information such as vessel names, time, and positions. It was a necessary task to fill the dots (...) and to restate an intact sentence where a tilde (~) occurs in the SMCP. In this way, I was able to compare lexicogrammatical patterns in the K-VTS and SMCP. With respect to the dots in the SMCP, I applied certain capital letters as substitutes (i.e. N for numbers, T for times, L for locations, W for others) to have complete sentences. Tildes were replaced with standard phrases given right before a tilde. Below is an example of this kind of replacement:

Advise you

~ keep your present course. → Advise you keep your present course.

SMCP covers external communication in part A and on-board communication in part B. All the language VTS personnel require are incorporated in part A, including the on-board communication between pilots and seafarers. Although a subsection AI/6 is titled as Vessel Traffic Service (VTS) Standard Phrases, the expository paragraphs in it has illuminated that "for further standardized VTS communications, also see other sections of PART AI." On that account, we embraced the whole part A of SMCP as reference for K-VTS. This made the SMCP data the total

of 14,178 running words.

Analysis

In analyzing the data, both quantitative and qualitative approaches were adopted. Comparing top 30 words in the wordlists of the SMCP and the K-VTS, several salient words were elicited from both lists and then implemented a concordance search on each word. For concordance searches I used one of the commercially available concordance tools, WordSmith 5 [17]. This search would produce concordance lines of the node words. All concordances for each node word were printed out and stored. Once concordance lines were obtained, we analyzed association patterns of the node word, investigating words to its right and left in the context, and also grammatical structures.

Results and Discussion

In order to see, lexicogrammar features of the SMCP and the K-VTS, top 30 words in the word lists of each data were compared as seen in Table 1:

table 1: Top 30 words in the wordlists of SMCP and K-VTS.

	SMCP	K-VTS		SMCP	K-VTS
1	THE	IS	16	HOURS	HAVE
2	IS	I	17	YOUR	JEJU
3	N	THE	18	BY	WITH
4	IN	#[3]	19	WILL	PLEASE
5	L	YOU	20	WITH	RESCUE
6	POSITION	TO	21	FROM	BY
7	TO	OF	22	HAVE	BOAT
8	W	IN	23	VESSEL	ON
9	I	A	24	ARE	WHAT
10	OF	SUHYUP	25	ASSISTANCE	VESSEL
11	MV	THIS	26	NOT	IT
12	YOU	AND	27	WHAT	AT
13	T	YOUR	28	EXPECTED	ARE
14	ON	POSITION	29	METRES	THERE
15	AT	WILL	30	NO	SHIP

Most of the words in the lists are overlapped although the rank of each word shows a bit different. There are, however, several words that draw attention. They are *please, rescue, boat, it, there*, and *ship* in the K-VTS, and *assistance* and *expected* in the SMCP.

First, *please* occurred 47 times in the K-VTS, but only once in the SMCP (i.e. *Please confirm*). As Franceschi [15] points out, SMCP, spoken ME in general, appears to show "the general avoidance of politeness formulas in the imperative (e.g. *I require assistance*. (SMCP; 29))" to eliminate ambiguity (p.83). K-VTS represented a quite opposite tendency as seen in some examples below:

N Concordance
1 Wait for a minute **please**!
2 Say again **please**?
3 in position AI. **Please** call us through channel 10.

Second, the use of non-referential *it* and *there* was noticeable in the K-VTS. *It* appeared 39 in the K-VTS and 22 times in the SMCP, while *there* occurred 33 times in the K-VTS and 7 times in the SMCP. Grammatically speaking, *it* can be used either as demonstrative pronoun or as non-referential subject as seen in examples (1) and (2) below respectively:

(1)A: Do you know where the remote control is?
B: **It's** on the couch. [18]
(2) **It's** raining.

In example (1), *it* refers to the remote control, yet in example (2), *it* does not refer to anything. *It* was used as a dummy subject. The referent of demonstrative pronoun is context-dependent. In other words, it indicates a different thing depending on the context. This could cause confusion between communicators which must be avoided.

In the K-VTS, the majority (27 times) of *it* functioned as non-referential subject, and 12 times, as demonstrative pronoun. On the other hand, *it* occurred 22 times in the SMCP, and most of them were used as non-referential subject. Only one case showed its usage as demonstrative pronoun (i.e. *We will let go port anchor N shackle and dredge* ***it***.). SMCP was compiled to pro-

3 # indicates numbers.

mote safety at sea by providing standard phrases that feature simplicity and clarity. From this perspective, the frequent use of the demonstrative pronoun it in the K-VTS seems to be problematic. With the same concern, other demonstrative pronouns, *this* and *that*, in the data were scrutinized, and the similar results were detected: *this* occurred 80 times in the K-TVS and 13 times in the SMCP, and *that*, 8 times and none respectively.

Non-referential *there* showed the similar phenomenon. *There* can function either as non-referential subject or as deictic adverb as seen in examples (3) and (4) below respectively:

(3) **There's** a lot of noise here.
(4) A: Do you know where the remote control is?
B: It's over **there**, on the couch. [18]

There occurred 33 times in the K-VTS and only 7 times in the SMCP. All the *there* in the SMCP were used as non-referential subject: There was no deictic use of *there*. In the K-VTS, however, *there* were often used deictically (locatively) as seen examples extracted from the K-VTS data:

N	Concordance
27	The helicopter will arrive **there** soon.
28	We will arrange another vessels around **there**.

Third, the word *ship(s)* occurred 36 times in the K-VTS, but none in the SMCP. As stated in the introduction of SMCP, it avoids synonyms, thus giving preference to a certain word among the members of a synonym group. In the case of the synonyms of *ship*, the word *vessel* is favored in the SMCP. This may be so because *vessel* is a catch-all term, which describes any floating object used for the carriage of people or goods. *Vessel* occurred 19 times in the K-VTS, which means K-VTS prefers *ship* to *vessel*.

Fifth, *assistance* and *expected* were another items that drew attention. Both words showed high frequencies (95 and 87 hits respectively) in the SMCP, but rarely or never occurred (6 and 0 hit respectively) in the K-VTS. The collocates of assistance in the SMCP showed such words like *require, medical, navigational, escort, tug, available*, and so on. For expected, the collocates were *variable, decrease, tides, situation, increase, visibility*, etc. As can be seen, both collocates are common words we can easily encounter in VTS communications and even in the K-VTS data. Interestingly, however, those two nodes were rarely or never appeared in the K-VTS.

Finally, a couple of disparate linguistic features were observed in the K-VTS. In order to reduce miscommunication, the SMCP avoids using ambiguous words including some modal verbs, such as may, might, and could. K-VTS data represented ambiguous words, such as presumption words, likely and suppose, and modal verbs, could and may. According to Mitkova, Genova, and Halid [16], with respect to the usage of tense in the SMCP, the Present Continuous and Present and Future Simple tenses are common, while the Present Perfect tense is rarely used. In the K-VTS, however, the Present Perfect tense were often used as seen in the extract from the K-VTS below:

N	Concordance
1	And **has** there been any personal casualty or oil spill?
2	**Has** there been any oil spillage or personal casualty
3	There **have** been a vessel in distress in position
4	You **have** been dragged anchor due to strong wind

Conclusion

The findings are as follows: 1) although the SMCP appears to show the general avoidance of politeness formulas in the imperative to eliminate ambiguity, the K-VTS often employed a polite form of making a request, please; 2) non-referential It and There as subjects, demonstrative pronouns, it, this, and that, and deictic there were more often used in the K-VTS than in the SMCP; 3) frequently used words, assistance and expected in the SMCP rarely or never occurred in the K-VTS; 4) modal verbs, could and may that are indicated not to use in the SMCP was employed in the K-VTS; 5) presumption words, suppose and likely that are also categorized as an avoided word class in the SMCP were used in the K-VTS; and 6) the Present Perfect tense rarely used in the SMCP was often employed in the K-VTS.

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Practising Verbal Maritime Communication with Computer Dialogue Systems Using Automatic Speech Recognition (My Practice session)

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Abstract

This My Practice session presents a novel online tool for practising verbal communication in a maritime setting. It is based on low-fi ChatBot simulation exercises which employ computer-based dialogue systems. The ChatBot exercises are equipped with an automatic speech recognition engine specifically designed for maritime communication. The speech input and output functionality enables learners to communicate with the computer freely and spontaneously. The exercises replicate real communicative scenarios on board ships thus catering for a synchronous, constructivist learning environment to improve students' listening and speaking skills. The My Practice session will introduce conference delegates to the different exercises and familiarise them with the technology so that they will be able to integrate this innovative technology in their respective teaching environments.

keywords: *automatic speech recognition, maritime chatbot, low-fi simulation, maritime simulation*

Introduction

Most communication on board sea-going ships is conducted verbally, either face-to-face amongst crew members or via radio devices with tugs, the Vessel Traffic Service (VTS) or with ships in the vicinity. Maritime Education and Training (MET) institutions face the challenge of teaching and assessing the speaking and listening skills of future seafarers. Given the often rather limited classroom space and time, many MET institutions find it difficult to attend to heterogeneous learner groups and individual student progression. Practising the verbal communication skills demanded by the International Convention on Standards of Training Certification and Watchkeeping for Seafarers (STCW) [1] on an individual student level can thus prove to be difficult, if not impossible. The revised IMO Model Course 3.17 "Maritime English" underlines the importance of a communicative teaching approach with "explanations and suggestions for practical, communicative classroom activities to assist the instructor to implement this model course effectively" [2, p5]. The question arises as to how to implement this communicative approach without compromising the classroom time available for weaker or slow progression students.

Language proficiency can be classified into the four categories of Reading, Writing, Listening and Speaking [3]. For the first three categories mentioned, MET institutions have adopted a series of blended-learning or e-learning strategies in an effort to provide their students with a more student-centred learning environment [4]. Apart from the classroom environment, speaking may also be practised in simulation exercises which Jurkovic reports as "highly specific for the ME community" [5, p6]. However, the use of full-mission maritime simulators is very costly and their availability might be limited. Low-fi simulation including web conferencing software has been identified as a possible low-cost solution [6, 7] but this technology also presents constraints mainly due to technological issues (e.g. Internet access, software versions, etc.) and the time-consuming preparation of the exercises.

As a possible solution to these constraints to practising speaking, computer dialogue systems (aka ChatBots) have been developed which allow students to acquire "communication competencies put forth in the STCW code […] by practising relevant maritime communication at the student's own individual learning pace thus catering for a student-centred education approach" [8, 9]. Figure 1 summarises the advantages and disadvantages of the different learning environments.

fig 1: Advantages and disadvantages of the different learning environments

classroom teaching	**low-fi sim: e-learning**	**low-fi sim: ChatBots**	**full-mission simulation**
• teacher-centred	• student-centred	• student-centred	• student-centred
• natural dialogues	• rigid structure	• natural dialogues	• natural dialogues
• on campus	• at home	• at home	• on campus

Maritime Simulation using speech input

The maritime ChatBot presented at IMEC27 allowed students to communicate with the computer dialogue system freely and in a relatively natural discourse structure. The computer system provided the output either in written form or verbally through a computer-animated voice while students had to give their input by typing the text into the computer.

The computer dialogues available at www.smcpexamples.com/chatbot are now equipped with an additional speech input so that students have the option to give their input either by using the keyboard or simply by speaking to the computer. In this latter case automatic speech recognition is carried out and the recognised text transferred into the dialogue system. Optionally, the text output can be deactivated so that students rely on the auditory output exclusively. This latter option substantially increases the difficulty of the exercises as no visual clues can be used any longer. The perception of a real communication is highly increased.

The automatic speech recognition has been developed specifically for maritime communication by being extensively trained with real and simulated Vessel Traffic Service (VTS) and bridge team communication and with the IMO Standard Marine Communication Phrases (SMCP). The speech recognition engine is still under development but has been found to be sufficiently reliable for being trialled by the maritime community.

Available simulation exercises

At the time of publication, three exercise types are available which have been developed in the framework of the VTS-Bot research project funded by the International Association of Maritime Universities (IAMU) and the Nippon Foundation.

Students are first welcomed by the Welcome Bot. This dialogue provides a short introduction to the exercises and instructions on their use. The SMCP Bot allows students to practise the SMCP phrases, the SMCP Glossary and the SMCP Message Markers. The focus in these exercises lies on memorising the correct terminology in a drilling fashion. For each correct answer, the student's score increases. Once the score has reached a minimum level of ten points, students are allowed to proceed to the more complex exercises. The MediBot exercises include a number of medical emergency cases. Here, students have to gather information on an accident that occurred on board and report it to Port Radio. The medical cases offer an increased complexity as no clues are given as to what kind of accident has taken place. The Tokyo Bay Approach asks students who act as nautical officers on board Motor Vessel Josco Lily to contact the different VTS areas and pilots in Tokyo Bay and give the pertinent reports. Finally, the Phone Call Bot challenges students to deal with a nautical officer who is not willing to give away any useful information unless asked very explicitly. Takagi et al. [9] describe the ChatBot exercises in more detail.

Suggested use of ChatBot exercises in Maritime English teaching

The voice-enabled ChatBot exercises are mainly intended to complement classroom activities. By flipping the classroom [10] students are given instructions to undertake a specific exercise in their own time and at their own pace. The SMCP exercises are mainly targeted at memorising the substantial vocabulary and discourse structure (e.g. markers, questions starting with the interrogative “What”, etc.). In class, the exercises can be repeated and possible difficulties discussed. Two student groups can be created to carry out the exercises in a competitive manner. Each correct answer will increase the respective group's score, and a winner will be declared.

In the case of the medical cases, the Tokyo Approach and the simulated phone call, students are assigned a task which they study in their own time. In the following class, the tasked

exercise is debriefed and alternative communication patterns may be discussed. The exercise is then repeated as a role play in class where variations to the original dialogues can be introduced. Finally, students are asked to write a report on the case studied.

Discussion

Students of Nautical Sciences have been found to work very actively in relevant low-fi simulation exercises [7]. Voice-enabled Maritime ChatBots provide a constructivist learning environment and offer a sufficiently realistic resource to practise students' speaking skills. Therefore, they add a useful, low-cost tool to the Maritime English instructor's toolkit to train this particular language competency. Ongoing research will further improve the robustness of speech recognition and open up new application areas in the maritime domain. These may include the use of ChatBots on board ships or in a combination of full-mission and low-fi simulation, e.g. in fire drills, evacuation exercises or pilotage operations.

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Using problem-based learning to facilitate realistic maritime communication (My Practice session)

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Abstract

Students with an advanced level of Specialised Maritime English (see Model Course 3.17 Maritime English, 2015 edition) benefit from a communicative, student-centred approach in the classroom. At Antwerp Maritime Academy, Belgium, this approach is adopted within a multi-lingual, multi-cultural environment whereby mixed groups of third year Bachelor students across different disciplines (Nautical Sciences and Marine Engineering) engage in problem-based learning. The students have to resort to English as the lingua franca in order to troubleshoot multi-faceted, maritime scenarios based on authentic situations. Within the frame-work of "My Practice" this short paper provides insight into adopting methods that lead to classroom creation of realistic maritime communication.

keywords*: problem-based learning, Specialised Maritime English (SME), communicative approach, student-centred approach, multi-lingual, multi-cultural*

Introduction

Antwerp Maritime Academy[1] (hereafter referred to as HZS) finds itself in an unusual position. As the only maritime academy in Belgium, situated at the centre of Europe, and located on the perimeter of one of the continent's major ports, it attracts a diverse student population, compris-ing, significantly, many different nationalities. This, naturally, means that cadets speak different mother tongues/native languages and originate from diverse cultural backgrounds. Students cur-rently[2] enrolled at HZS hold 20 different nationalities[3], the largest groups coming from Belgium and France (see footnote below for numbers). Even the native Belgian students, although shar-

1 Hogere Zeevaartschool - Ecole Supérieure de Navigation d'Anvers – Antwerp Maritime Academy

ing the same nationality, are not a homogeneous group, consisting of Dutch speakers (Flanders), French speakers (Wallonia) and, occasionally, German speakers (mainly East Cantons).

In accordance with regional educational policies, the student's right to be taught and to learn in his/her mother tongue/native language is central to Antwerp Maritime Academy's statute and therefore prescribes the choice of language for teaching purposes. As the only maritime training establishment at tertiary level in Belgium, Antwerp Maritime Academy thus opts for Dutch and French as the Academy's two working languages. A number of courses are taught in English, but these are limited and pertain mainly to the Master's programme in Nautical Sciences. Lectures are typically given twice, once in French and once in Dutch, to separate groups of students who enroll in their individual programme according to their mother tongue/native language. This approach might be considered advantageous by some yet restrictive by others, depending on the point of view. In addition, students in Nautical Sciences (Deck) and Marine Engineering (Engine Room) follow strictly separate classes, according to their programme.

The Maritime English department at HZS would therefore seem to find itself in an envious situation. For one thing lecturers are faced with a body of learners who already have an intermediate to advanced level of English on entry to the academy (approximately 50% of cadets). These are, predominantly, the homogeneous group of Flemish (Dutch-speaking) students. Goethals [1] notes that "13-year-old Flemish pupils already know about 400 English words before even taking a first formal English class". The competent level of English amongst Flemish students is due to high standards of teaching in secondary schools in Flanders, an affinity with the language itself (Dutch and English belong to the same 'family' of languages), everyday exposure to English (television and film are not subtitled) and the Fleming's tendency to have a natural aptitude for languages (familiarity with multi-lingual environments). These students, displaying competence in English, enable the lecturer to concentrate on Specialised Maritime English rather than attempting to enhance low levels of General Maritime English[4]. In addition, the diversity presented within the student population, when Dutch-speaking and French-speaking communities are considered as one group, mimics seafarer communities on board, reflecting a

2 Academic year 2015-2016

3 The following countries are currently represented at HZS: Algeria, Belgium (385 students), Benin, United Kingdom, Congo, Estonia, Finland, France (166), Iraq, Italy, Cameroon, Libya, Luxembourg, Morocco, The Netherlands, Poland, Senegal, Spain, Tunisia and Switzerland.

4 In order to indicate levels, the authors have chosen to adopt the terms used in the revised (2015) IMO Model Course 3.17 [3], namely General Maritime English (GME) and Specialised Maritime English (SME).

range of nationalities and languages. This should, in theory, lead to many different opportunities in terms of teaching and learning Maritime English. The more advanced students are able to motivate and assist the less able, the range of mother tongues poses a challenge in terms of effective communication and cultural differences bring to light yet more communicative issues amongst others. However, the restrictions imposed by timetabling due to the separate language groups and the individual academic disciplines means, in practice, that the two communities rarely come together.

Recently, the authors identified an opportunity to bring diverse 3rd year Bachelor students together, eliminating the boundaries set up by academic disciplines and language communities. During October and November 2015, advantage was taken of parallel Maritime English classes enabling instructors to match Marine Engineering French-speaking students with Nautical Sciences Dutch-speaking students and vice versa. The authors took the chance to engage students in problem-based learning (PBL) as a means of honing and practising communication skills.

Methodology

Problem-Based-Learning (PBL), which promotes independent learning, shifts the focus of the classroom from a teacher-oriented approach to a student-centered approach. Traditional education is sometimes accused of failing to equip students with problem-solving and life-long learning skills whilst PBL, by contrast, encourages self-direction and has been employed across a wide range of disciplines, including medicine, law, business education and leadership studies [2], to mention only a few.

At Antwerp Maritime Academy we chose this particular method in order to promote a range of competences considered necessary for cadets embarking on a seafaring career as deck and engineering officers (operational level). These include a wide range of communicative and generic skills such as teamwork, leadership, interpersonal skills, cross-cultural awareness, communicative competences and analytical skills.

We present the PBL method to our students as a teamwork exercise. A document explaining the theory of PBL is made available to students via an online learning platform. In preparation for the task ahead students are asked to conduct their own short research into PBL in order to have a better understanding of the goals and objectives. When students first meet in class there is a feedback discussion on their findings. This helps to clarify the method for all the participat-

ing students. There follows a brainstorming session on the "Seven Jump" system by which students are required to perform the following steps, in accordance with the theory of PBL:

1. read the text (the problem) and clarify any terms/words and concepts (linguistic problems);
2. define and describe the main problem;
3. brainstorm the situation, analyse the problem and distinguish sub-problems, including a ranking in terms of emergency and priority;
4. explain the problem by making a systematic inventory of the reasons for all the sub-problems;
5. formulate the learning objectives/goals (leading to possible solutions);
6. search for additional information outside the group;
7. report and synthesize the new information and draw final conclusions.

It is hoped that brainstorming leads students to appreciate the process involved in trouble-shooting. In order to find practical solutions to a specific problem they need to develop strategies to take them from A to Z, via E, G or S whilst realising that sometimes it is advantageous to revisit A!

The instruction given to the students is to form groups of 6 to 8 students. The profile of each group must be multi-lingual (both native Dutch speakers and native French speakers), include students from different disciplines (Nautical Sciences and Marine Engineering) and, if possible, include both male and female cadets.

Each group is given a specific maritime incident, in the form of a written 'abstract', involving miscommunication. The 'abstract' provided as an example concerns the Bright Field allision and is an abridged version of the official accident report[5]. The incident revolves around the Master/Pilot relationship. Students are advised to alternate roles within the group, choosing to be the discussion leader, the secretary, the reporter/spokesperson or participant in a PBL session. The communication language is, naturally, English, so that both French and Dutch speakers find common ground.

5 The abridged version of the Bright Field accident report was compiled by A. Noble using the original report which is available online at http://www.ntsb.gov/investigations/AccidentReports/Reports/MAR9801.pdf

The PBL is carried out over a period of 2-3 weeks and includes two short sessions provided to the students in the classroom. Apart from time in class, students are also supposed to come together as a group outside the classroom and to work on the assignment in self-study time. In addition to the communicative phase, the assignment culminates in a written report which each group submits, at the end of the assignment. After the whole project, students provide feedback on the teamwork and the learning process.

Discussion

The PBL method is not new and neither is it "rocket science"! However, the feedback gathered from our 3rd year student population was surprising, in a positive sense. It revealed that when cadets are actually faced with the reality of dealing with aspects of leadership, language, teamwork, interpersonal issues, troubleshooting, knowledge sharing and cultural issues they are not always as confident as they think! Although not all of the feedback was enthusiastic, the PBL nevertheless was shown to have multiple advantages.

We would like to present some of the reactions from the students, below, by linking them with terms from the PBL-theory.

1 Flexibility. *"I understand most of what's going on in the engine room. Now I know we also have to deal with the deck department and that it is even necessary. Some of the things I know were not always accurate"*

"*Problem-based learning (PBL) was an interesting experience for several reasons. The first thing was to work with engineers. […]. Moreover, teamwork is always an advantage. The added value of this cooperation was to learn how to work with unknown persons from another branch, with different knowledge and points of view*"

2 Problem solving skills/troubleshooting. *"I like the fact that we could do something by ourselves. The teacher was just giving advice but for the rest we were on our own to solve a problem. I know it's not real life but it felt like it was."*

3 Teamwork/collaboration skills. *"I didn't know that a simple problem could have so many aspects. And you have to work together to have it fixed a.s.a.p. If you are at sea and the engine doesn't work, it's your responsibility and it's huge."* - *"I liked getting to know the students from*

the deck department (Nautical Sciences). We always see them in the corridors and in the mess-room but we never really talk to each other. These sessions have given me the opportunity to get to know the other side."

"*First of all, the Problem Based Learning method was for my part a little bit too complicated […]. I think there are simpler ways to analyse a text. […] I really enjoyed working in a mixed group with Flemish students or even students from the mechanic* (sic) *section. First because it was rewarding to bring different points of view and secondly, because it was clearly the topic of the texts we were working on every day."*

4 Self-directed learning & confidence building: *"Now I understand that a poor level of English is problematic. I thought it was quite scary to be in a group of fairly advanced English speakers, but luckily I felt that the students of the deck department really listened to what I had to say because I know best when it comes to engines and stuff."*

5 Intrinsic motivation. *"I was the only engineering student in the group and my English is not good. I shut down and stuck to listening and nodding. It is a problem I have to do something about. Otherwise I won't get a proper job later."*

6 Language. *"These two PBL assignments were a very rich experience for different reasons. First of all, it pushed all students to talk and to exchange mutually in English, which is quite rare at school. Exchanging [information], about maritime and technical topics in English with a Spaniard was also a good experience for those who hadn't been to sea. It made them realise how complicated communication can be between seafarers coming from different countries, with various academic backgrounds. The teamwork obliged each of us to make an effort to formulate ideas for the whole team to understand".*

"It has been very interesting to work with different language speakers, namely a Spaniard. It obliged us to work in English and practise our English knowledge"

Conclusion

In terms of Maritime English employing the PBL method with mixed groups of students forces them, by the nature of the process, to use the language. In addition we conclude that this method encourages pro-active learning. When students work in groups, they spontaneously re-

late to what they already know whilst at the same time realise what they do not know. The learning threshold may initially be lower in peer-teaching, but this prompts the learner to search for new information, thus adjusting his or her prior knowledge. As regards instructors, their role as a coach or facilitator must not be underestimated. Especially in the beginning, students have many questions and for the instructor it is vital not to be too eager to help them but only to assist by giving perspective or suggestions. Interestingly enough, students can be observed naturally easing into their role and gradually excluding the coach. The process of analysing and solving the problem is the trigger for independent learning. Students also refine their acquired knowledge in more intrinsic way. Finally PBL learning enhances the concept of life-long learning, since learning is not necessarily perceived as an external obligation or as a pre-phase to professional life.

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PBL 2: MASTER/PILOT RELATIONSHIP

ABSTRACT 1

BRIGHT FIELD ALLISION

14 December 1996: the allision of the Chinese manned bulk carrier *Bright Field* with the wharf adjacent to a busy part of the New Orleans waterfront.

Shortly after 1400 on 14 December 1996, the fully loaded Liberian bulk carrier *Bright Field* temporarily lost propulsion power as the vessel was navigating outbound in the Lower Mississippi River at New Orleans, Louisiana. The vessel struck a wharf adjacent to a populated commercial area that included a shopping mall, a condominium parking garage and a hotel. No fatalities resulted from the accident and no one aboard the *Bright Field* was injured; however, 4 serious injuries and 58 minor injuries were sustained during the evacuation of shore facilities, a gaming vessel and an excursion vessel located near the impact area. Total property damages to the *Bright Field* and to shoreside facilities were estimated at about $20 million.

The *Bright Field's* engineering plant had a history of problems and on the previous voyage a 3 day layover in Singapore was necessary while repairs were made to the main engine.

On 14th December 1996, following two days at anchor for repairs to the main engine's turbocharger and air cooler, the pilot boarded the Bright Field and was taken to the bridge where he was introduced to the master. The ship's master spoke what the pilot described as *broken*, *but adequate, English*. The pilot believed that he and the master understood each other. The master also said that he was satisfied with their ability to communicate.

At 1055 the pilot began the normal procedures for getting underway. The main engine did not start from the engine wheelhouse controls. The 3/O called the engine control room and told the Chief Engineer, in Chinese, that the engine had not started. Engine control was transferred to the engine control room. After engines were started, control was transferred back to the wheelhouse. After the accident, the pilot stated that he had not been advised of the difficulties in starting the engine from the wheelhouse, nor was he informed on those occasions when engine

control was transferred to or from the engine control room.

At 1350 the ship was cleared to transit Algiers Point. A seagoing tow boat was inbound at that point. The pilot stated that he allowed the vessel to acquire a current-induced swing to port to facilitate the upcoming manoeuvre around Algiers Point.

The swing to port as the ship passed under the Crescent City Connection Bridges pointed the vessel toward the left descending bank, the side of the river where Poydras Street wharf and Riverwalk Marketplace shopping mall were located and where gaming, excursion and cruise ships docked. At about 1406, while the *Bright Field* was still transiting under the bridges, power output from the vessel's main engine dropped. At this time, the vessel's automated propulsion control system reported low main engine lubricating oil pressure and main engine trip due to low oil pressure.

The pilot noticed the sudden quiet and the vibration ceasing. He turned and saw the master and 2/O standing beside the engine order telegraph looking down at something on the console and asked them if there was a problem but got no response. He said that he did not ask a second time “because they didn't answer me the first time”. He then saw that the engine rpm had dropped to about 30. When he realised that the vessel had lost power, the pilot “jumped” out of his chair and called the Governor Nicholls Light operator. As he made the call he was looking out of the bridge windows and was aware that the ship was swinging to port and toward the docked ships along the left descending bank. The pilot told the Governor Nicholls Light operator that his ship had lost power and that the operator should alert everyone in the harbour. He then ordered hard starboard rudder as the ship continued to swing to port but the new rudder setting did nothing to alter the vessel's direction and the pilot began sounding the danger signal using the ship's forward whistle. The pilot stated that he ordered the master on at least two occasions to have someone stand by the anchors but he did not hear the master acknowledge the order. He recalled the master speaking Chinese on the radio and that the master did not appear to be agitated.

The chief engineer and the second mate had meanwhile been talking on the telephone. The chief engineer told the 2/O that he did not know the reason for the sudden drop in No. 1 oil pump pressure but since the No. 2 pump had already come on line, the pressurisation problem was solved. The chief engineer and the 2/O mutually agreed to transfer engine control to the engine control room and the chief engineer began the process of restoring engine power. The

pilot was not made aware of the restoration of power. The swing to port continued and the pilot ordered the master to drop anchors and ordered the main engine full astern. The master said the pilot ordered only the port anchor to be dropped, that he concurred with that order, and that, although he did not acknowledge the order to the pilot, he attempted to carry it out. Post accident review of an amateur videotape of the allision indicated that the anchor did not drop prior to impact.

At about 1411, the port bow of the *Bright Field* struck the Poydras Street wharf at a location between the docked *Nieuw Amsterdam* and *The Queen of Orleans*. The vessel struck the wharf at what witnesses said was a 40- to 45- degree angle went into the wharf up to the end of the foc's'le deck (about 50 to 60 feet), and then made a sideways movement. The bow portion of the vessel scraped and collapsed portions of the buildings. The ship came to rest against the wharf with its stern about 200 feet from the stern of the *Nieuw Amsterdam* and its bow about 70 feet from the bow of *The Queen of Orleans*. About 3 minutes had elapsed from the time the pilot made his first emergency call to the Coast Guard light operator until the ship struck the wharf.

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Using Group Work to Build Competence in Maritime English for the Teacher and Learner (My Practice session)

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Abstract

Maritime English (ME) is often taught by teachers who know little of Maritime English (Cole, 2007). Many ESOL teachers are required to master elements of unfamiliar professional fields in order to deliver ESP courses. However, ME has certain features not shared by other ESPs, notably the role that language plays in securing and maintaining safety in workplaces within the industry. Teachers with little opportunity of gaining essential knowledge before they take on a maritime English class must find ways in which to gain this knowledge quickly.

The co-authors, both highly experienced teachers of ESOL, found themselves in this situation. The learners were in their second year of a Bachelor degree in Nautical Science at NTNU Ålesund, Norway, and many had extensive work-experience within the maritime industry both on and off shore but little experience in the adult ESOL classroom. A solution was to use the expertise available among students and teachers and enable all participants in the classroom to become both learners and teachers.

Group projects enabled learners to work together in the L2 while engaging with authentic texts on an authentic task culminating in a group presentation. The tasks enabled learners to use their real-life work experiences while also employing academic skills gained while at university. Group work allowed students to share different work experiences and knowledge of ME as well as providing us with a platform in which we could much more effectively ask questions in order to bolster our knowledge of the maritime industry and certain aspects of ME.

keywords: *teacher knowledge, group work*

Introduction

Maritime English (ME) is often taught by teachers who know little of Maritime English [1]. Many teachers working within the broad discipline area of ESOL are required to master elements of unfamiliar professional fields in order to deliver a range of courses categorised as English for Specific Purposes (ESP). However, ME has certain features not shared by many other ESPs, notably the role that language plays in securing and maintaining safety in workplaces within the industry. Teachers with little opportunity of gaining essential subject matter and language content knowledge before they take on a maritime English class must find ways in which to gain this knowledge quickly.

In August 2014, we were employed by Ålesund University College (now NTNU Ålesund) to deliver a five ECTS course in Maritime English. Although we were both highly experienced teachers of ESOL, neither of us had ever taught within the maritime sector and therefore we had very limited knowledge of industry specific language, industry specific subject matter knowledge and thus limited knowledge of Maritime English as it has evolved since 'Seaspeak' was formally adopted by the IMO in 1988 [2]. In addition, we had little documentation from previous presentations of the course indicating how the course had been delivered, no clear syllabus or criteria for assessment and evaluation, limited teaching/learning materials and no access to the previous teachers. We therefore had to build the course from scratch, a task made more challenging by our lack of knowledge and the course start date, which was the week one of the author's started work at the University and two weeks before the other author's start date. Our first presentation of the Maritime English course therefore ran parallel to our learning about Maritime English and the maritime industry.

In a teaching/learning context, there is a knowledge gap between the teacher and student regarding the subject taught with the teacher having a greater knowledge of the subject than does the learner. In our context, knowledge gaps and the direction of these were less straightforward. The learners had a superior knowledge of the maritime industry as they were in their second year of a Bachelor degree in Nautical Science, and many had extensive work-experience within the maritime industry both on and off shore. We had a superior knowledge of English and of language learning both professionally and personally, while our students had little experience in the adult ESOL classroom and for the majority, English, was their only foreign language. However, both we the teachers and the students lacked knowledge of many aspects of maritime English. The students were in a position to help us learn about the maritime industry and improve our

subject matter knowledge, so that we could begin to see how maritime English fitted into this. We were in a position to help our students become effective language learners so that they could continue to develop their maritime English skills as they progressed through their degree and moved on to full-time work in the industry. We had to use these two knowledge domains to begin to fill the knowledge gap of students and teachers in ME, combining student expertise in the maritime industry and teacher expertise in language pedagogy so that learning and teaching became a two-way process enabling all participants in the classroom to become both learners and teachers.

One way of achieving this is collaborative group work, which is a feature of many courses in university level education in Norway. It also provides a good fit with task-based language learning allowing learners to use their language resources and identify gaps in this rather than be presented with structural models by the teacher [3]. We used group projects to enable learners to work together in the L2 while engaging with authentic texts on a task that culminated in a group presentation. The tasks enabled learners to use their real-life work experiences while also employing academic skills gained while at university. Group work allowed students to share different work experiences and knowledge of the maritime sector and ME. The resulting presentations provided us with a platform in which we could much more effectively ask questions in order to bolster our knowledge of the maritime industry and certain aspects of ME while also being able to help students improve a range of academic English skills as well as skills that would become important in future workplaces. During the first presentation (autumn, 2014) students were given the following task choices:

> Option 1: Describing a vessel.
> Option 2: Describing a shipping company.

The subsequent presentations provided us with a large amount of industry knowledge, as well as language input. They also gave us a forum in which to use students' industry knowledge in order to extend further our subject matter knowledge by asking for definitions, explanations and clarification. The students, on the other hand, had to pool their academic, language and industry knowledge while considering audience, context and register. They also had to stretch their language knowledge to answer our questions. The information we gained from this fed into the syllabus and material design for our second presentation of the course in autumn 2015. We asked the 2015 students to work on a different group project:

> Prepare a short group presentation about a maritime incident.

Choose an incident from the list below. These are all real-life incidents and you must therefore do some research to find out the relevant details. You should imagine that you are presenting the result of the incident investigation to an organisation that is connected to the incident (for example, the company who owns the vessel involved, the crew of the vessel, the Port authority, or shipping agents).

Again, subject matter knowledge and language knowledge gained from this has helped us to continue to develop the syllabus and materials for the current autumn 2016 presentation of the course.

We have now delivered our Maritime English course twice and will begin a third in August 2016. The situation we are in is still far from ideal in terms of teacher subject matter knowledge, but using group work in this way has done much to improve the quality of the Maritime English course offered at NTNU Ålesund in a short space of time. Students are generally satisfied and both feel that we are able to continue being responsible for this course.

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Chalmers University of Technology – Gothenburg, Sweden

Maritime English Seminar with Instructors from MAAP in Philippines and Introduction into Curriculum at Maritime Technology Department in Five NIT Colleges in Japan (My Practice session)

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Abstract

The maritime technology departments in the five NIT colleges in Japan are working together to enhance motivation and ability to be international ship officer and ship managers overseas for students with the “All maritime college study method improvement project” and “Maritime human resources developing project” sponsored by the Japanese government. To develop a new international internship program, MAAP and K Line Maritime Academy in Philippines were surveyed. After that, Yuge college invited 2 English instructors from MAAP and asked “Professional Maritime English Instructor's Training Seminar” for instructors and “Professional Maritime English Seminar” and “on board ship training in English” for students. New teaching style, discussion learning, role play active learning, U shape seat arrangement, and much more were introduced to instructors and performed at student classes. This seminar was introduced into Oshima and Hiroshima colleges. At Oshima college “on board ship fire fighting training in English” was also held. The statistical results of pre and post test and questionnaire survey for motivation enhancement to be seaman for this seminar are reported. This year the seminar will be introduced into Toyama and Toba colleges. The contents from this seminar will be edited and published into the textbook, “Let's Enjoy Maritime English”. Then it will be introduced into the

common curriculum at five NIT colleges. We also recommend the English study + internship program in the Philippines which is affordable for every students.

keywords*: MAAP in Philippines, five NIT colleges in Japan, maritime human resources developing project, Maritime English seminar, common curriculum*

Introduction

The maritime technology departments in the five NIT colleges (Toyama, Toba, Oshima, Hiroshima, Yuge) in Japan have challenges to improve from the classical maritime English education which focus on reading and writing typical in Japan to modern [1. 2. 3. 4] to enhance motivation and ability of students to be ship officer and manager at oversea with “All maritime college study method improvement project” from 2006 to 2011 [5] and “Maritime human resources developing project” from 2012 to 2017 [6. 7. 8] sponsored by the Japanese government.

To develop a new international internship program, Maritime Academy of Asia and the Pacific (MAAP) in Bataan and K Line Maritime Academy in Central Manila, Philippines were surveyed in Feb. 2013.[9] Unfortunately, we could not get an understanding and cooperation for this program at colleges due to security condition of the Philippines.

MAAP held “the maritime English instructors' training” for instructors from Japan, Indonesia, Thailand, Myanmar and Vietnam sponsored by the Japanese non government organization in Sep. 2013.[10] It gave a basic idea for “Professional Maritime English Instructor's Training Seminar” and “Professional Maritime English Seminar” for students in 5 NIT colleges.

Class and evaluation

Yuge invited 2 English instructors, Jane MAGALLON and Ma. Celeste ORBE from MAAP and asked the seminars for 2 weeks sponsored by “Maritime human resources developing project” in Nov. 2013. Oshima, Hiroshima and Yuge invited Jane MAGALLON and asked the seminar for instructors and for students for 1 week each in Nov. 2014 and 2015.

New teaching style, discussion learning, role play active learning, U shape seat arrangement, and much more were introduced to instructors and performed at student classes.

Photo 1. 2. Seminar view with active learning for 3ed grade students at Oshima

On board ship training were provided in English with school training ship, Yuge Maru at Yuge and Oshima Maru at Oshima. Yuge Maru travelled from Yuge port to Matuyama port through Kurushima channel for 2nd grade students in common course before separating into Navigation and Engineering course for 2 days in Nov. 2013. Kurushima channel is very famous rapid and strong current in very narrow channel and have special navigating rule. Role playing of "starting main diesel engine", "starting diesel electric generator", "departing port procedure", "arriving port procedure", etc. were done in this on board ship training.

Photo 3 Group photo of 2nd grade students in front of Yuge Maru

Photo 4 Explanation of winch in English on Yuge Maru

On board ship role playing of fire fighting and trouble shooting of winch were done at Oshima Maru for instructors in Nov. 2014. Before role playing, scenario were made in detail based on SMCP and discussed. Movies were taken and reviewed and discussed after role play.

Photo 5 Explanation of steering wheel in English on Yuge Maru

Photo 6 Active learning of starting diesel electric generator on Yuge Maru

Photo 7 Active learning of trouble shooting of winch on Oshima Maru

Photo 8 Active learning of fire fighting training on Oshima Maru

Questionnaire survey for how much students can enhance their motivation to be seaman through the seminar were conducted at end of all seminar. Table 1 shows survey questions which is same question for all students.

Questionnaire for MAAP Maritime English seminar

table 1: Questionnaire for professional maritime English seminar

Just choose one number from listed below for each question.

1: Very false 2:False 3:Neither true and false 4:True 5:Very True

Q. 1 Do you understand teacher's instruction in English?

Q. 2 Do you like this seminar style (presentation, roll play, work shop and etc.)?

Q. 3 Can you join the seminar proactively?

Q. 4 Can you enhance your motivation to communicate with foreigner through the seminar?

Q. 5 Can you enhance your motivation to study maritime English through the seminar?

Q. 6 Can you understand what kind of maritime English is needed as seaman?

Q. 7 Is the seminar useful for passing seaman license examination?

Q. 8 Can you enhance your motivation to be international ship officer and ship manager at oversea through the seminar?

Pre and post test were conducted before and after the seminar to evaluate the educational effect of the seminar. Table 2 shows example questions for 3rd grade in the engineering course at Oshima and Hiroshima college. Pre and post tests are composed with same question set. They differ with grade and college depending the content of the seminar.

MARITIME ENGLISH Pre-Post Test 3rd Grade Engineering NAME: _____

table 2: Questionnaire for Pre test and post test for 3rd grade at Oshima.

Read the questions carefully and choose the best answer. Circle the letter of your answer.

1. Where do you see the graphic panel?	A. control room	B. engine room	C. bridge
2. What is the purpose of the generator?	A. source of heat	B. gives electric power	C. makes fuel
3. The _____ controls the flow of the liquid in any pipe.	A. steering	B. pump	C. valve
4. What is the main component of the valve?	A. body	B. stem	C. bonnet
5. What do you call the book in the engine department that has all the information of the engine room?	A. bellbook	B. logbook	C. manifest
6. What machinery in the engine room that has combustion to make power stroke?	A. generator	B. purifier	C. main engine
7. What is the first event in a four-stroke engine?	A. compression	B. power stroke	C. suction
8. What connects the piston and the crankshaft?	A. piston rod	B. crank	C. cylinder

Result and discussion

Fig. 1-9 shows statistical results of the questionnaire survey of motivation enhancement in percentage at each grade at Yuge, Oshima, and Hiroshima in the seminar of Nov. 2015. All sector show gain of motivation. The motivation increase with increasing grade which is similar behaviour among 3 colleges. It is because of understanding of English increase with increasing grade. We conclude the seminar is successful to enhance their motivation to be seaman.

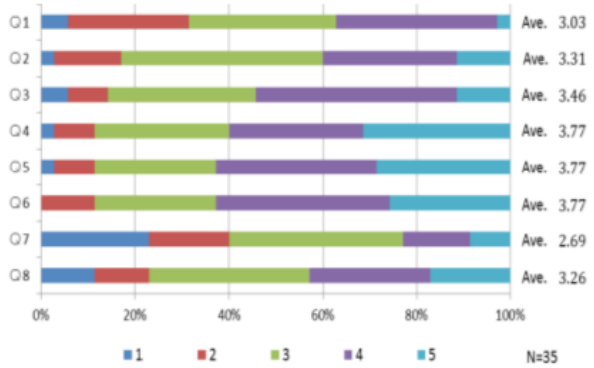


fig. 1 Statistical results of the questionnaire survey at 4th grade at Yuge

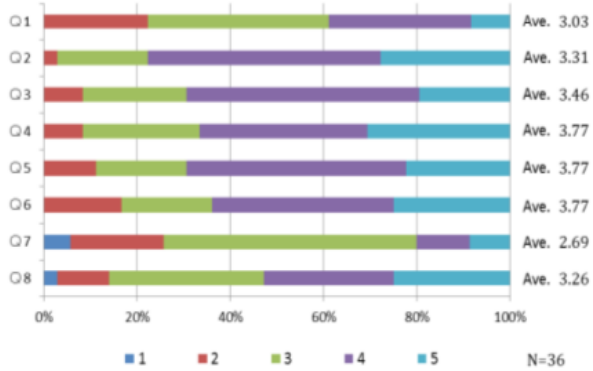


fig. 2 Statistical results of the questionnaire survey at 3rd grade at Yuge

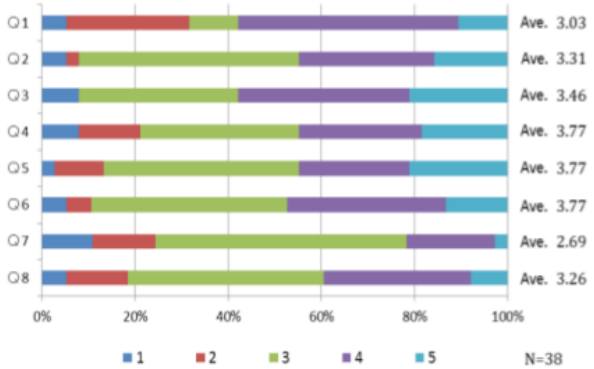


fig. 3 Statistical results of the questionnaire survey at 2nd grade at Yuge

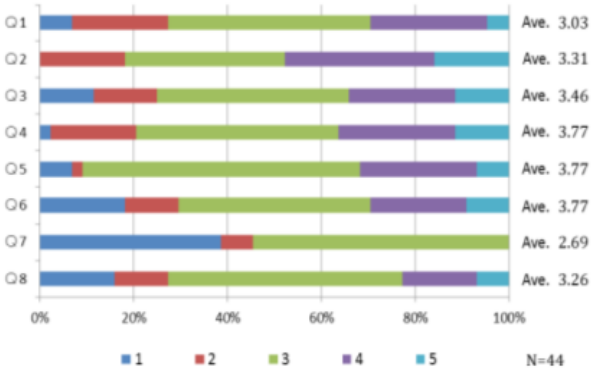


fig. 4 Statistical results of the questionnaire survey at 1st grade at Yuge

fig. 5 Statistical results of the questionnaire survey at 5th grade at Hiroshima

fig. 6 Statistical results of the questionnaire survey at 3rd grade at Hiroshima

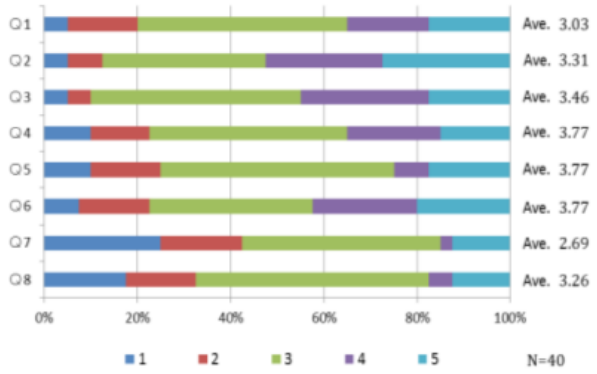


fig. 7 Statistical results of the questionnaire survey at 3rd grade at Oshima

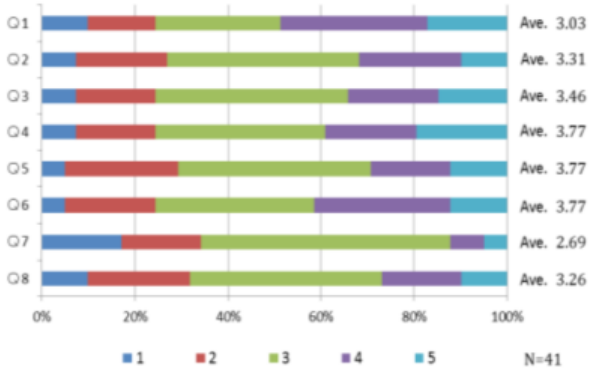


fig. 8 Statistical results of the questionnaire survey at 2nd grade at Oshima

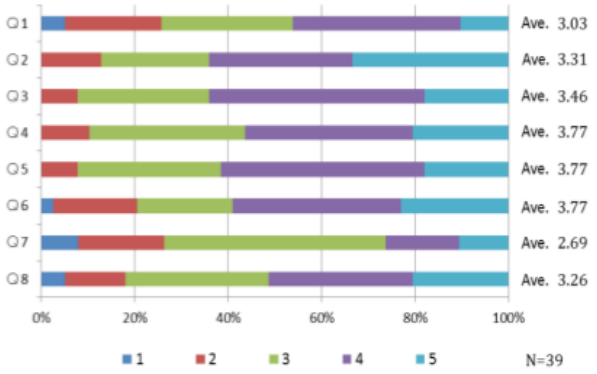
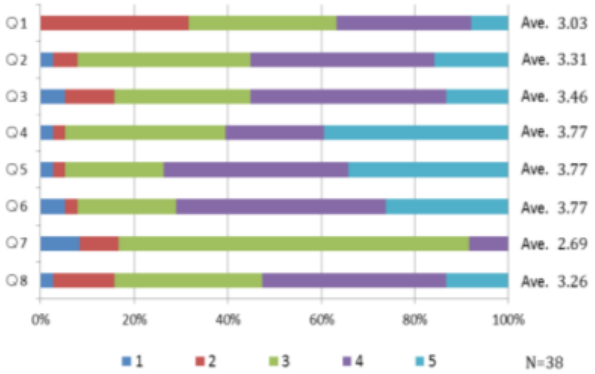


Fig. 9 Statistical results of the questionnaire survey at 1st grade at Oshima



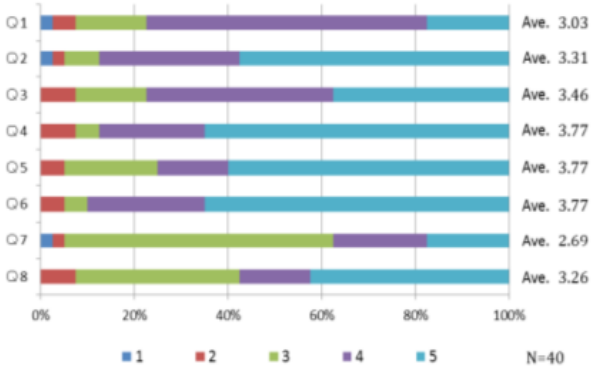


Table 3 shows statistics result of score gain between pre and post test at each grade in engineering course at Oshima and Hiroshima in the seminar of Nov. 2015. They are checked true or false at each question, give a score 1 for true and 0 for false and input into Microsoft Excel files. Score for each question is added and gain score for each student is computed by subtracting pre test score from post test score. Gain score is totalled in the class and normalized with number of total students in the class.

Table 3: Statistics result of score gain between pre and post test at 3rd grade in engineering course at Oshima and Hiroshima in the seminar of Nov. 2015.

Oshi Ma	3	E	1	1	1	0	0	1	1	1	1	6									
			2	1	1	0	0	0	0	0	0	2	1	1	1	0	1	1	1	1	7	5
			3	1	1	0	0	1	1	1	1	6	1	1	1	0	1	1	1	1	7	1
			4	1	1	1	1	0	0	1	1	6	1	1	1	0	1	1	1	1	7	1
			5	1	1	1	0	1	1	1	1	7	1	1	1	0	1	1	1	1	7	0
			6	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	7	7
			7	1	1	1	1	0	1	1	0	6	1	1	1	0	1	1	1	1	7	1
			8	1	1	1	0	0	1	0	0	4	1	1	1	0	1	1	1	1	7	3
			9	1	1	1	1	0	1	1	0	6	1	1	1	0	1	1	1	1	7	1
			10	0	1	1	0	1	0	1	1	5										
			11	1	0	1	0	1	1	1	1	6										
			12	1	1	1	1	0	1	1	1	7										
			13	1	1	1	1	1	1	1	1	8	1	1	1	0	1	1	1	1	7	-1
			14	1	1	1	0	0	1	1	1	6	1	1	1	0	1	1	1	1	7	1
			15	1	1	0	1	1	1	1	1	7	1	1	1	0	1	1	1	1	7	0
			16	1	1	0	1	1	1	1	1	7	1	1	1	0	1	1	1	1	7	0
			17	1	1	0	1	0	0	0	0	3										
			18	1	1	0	0	0	0	1	1	4										
			19	1	1	1	0	0	1	0	1	5	1	1	1	0	1	1	1	1	7	5
			20	1	1	1	0	0	1	1	1	6	1	1	1	0	1	1	1	1	7	1
			21	1	1	1	0	1	1	1	1	7	1	1	1	0	1	1	1	1	7	0
			22	0	1	0	1	1	1	1	1	6	1	1	1	0	1	1	1	1	7	1
			23	1	1	0	0	1	1	1	1	6	0	0	0	0	0	0	0	0	0	-6
																						20
School	Year Level	Corse	Student No	Pre Test									Post Test									Gain Score
				1	2	3	4	5	6	7	8	Tot Al	1	2	3	4	5	6	7	8	Tot Al	
Hiros Hima	3	E	1	1	1	1	0	0	1	1	0	5	1	1	0	0	1	1	1	0	5	0
			2	1	1	0	0	0	1	1	0	4	1	1	0	1	1	1	1	0	6	2
			3	1	1	1	0	0	1	0	0	4	1	1	1	1	1	1	1	1	8	4
			4	1	1	1	0	0	1	1	1	6	0	1	0	0	1	1	1	1	5	-1
			5	1	1	1	0	0	1	0	0	4	1	1	1	0	0	0	0	0	3	-1
			6	0	1	1	1	0	1	0	0	4	1	1	0	1	0	1	1	1	6	-1
			7	1	1	1	0	0	1	1	1	6	1	1	1	1	1	1	1	1	8	2
			8	1	1	0	0	0	1	1	1	5	1	1	0	0	1	1	1	1	6	1
			9	1	1	0	0	0	0	1	0	3										
			10	1	1	0	0	0	1	0	1	4	1	1	1	1	1	1	1	1	8	4
			11	1	1	0	0	1	0	0	0	3	0	0	0	0	1	0	0	0	1	-2
			12	1	1	0	0	0	1	0	1	4	1	1	0	0	1	1	1	1	6	2
			13	1	1	0	0	0	1	1	1	5	1	1	0	0	1	1	1	1	6	1
			14	1	1	1	0	0	1	1	0	4	1	1	1	1	1	1	0	1	7	3
			15	1	1	0	0	0	1	1	0	4										
			16	1	1	0	0	0	1	1	0	4	0	1	0	0	0	0	1	0	2	-2
			17	1	1	1	1	0	1	1	1	7	1	1	1	0	1	1	0	0	5	-2
			18	0	1	1	0	0	1	0	1	4										
			19	1	0	0	0	1	1	0	1	4	0	1	1	1	1	1	1	1	7	3
			20	1	1	1	1	0	1	0	0	5	1	1	0	1	1	1	1	0	6	1
			21	1	1	1	0	0	1	1	1	6										
			22	1	1	0	0	0	1	1	1	5	1	1	0	0	1	1	1	1	6	1
			23	1	1	1	1	0	1	0	1	6	1	1	1	1	1	1	1	1	8	2
																						17

Table 4 show statistics results of score gain between pre and post test at each grade in common, navigation and engineering course at Oshima and Hiroshim in the seminar of Nov. 2015. All results show score gain after the seminar. However it is bit small because the seminar is very

short in time, 7 hours each for Oshima and 4 hours each for Hiroshima. The seminar need a longer time span such as a month or a semester. We conclude that the seminar successfully to enhances professional English communication ability for future seaman.

Table 4: Statistics result of score gain between pre and post test at each grade in common, navigation and engineering course at Oshima and Hiroshima in the seminar of Nov. 2015

	1st Common	2nd Common	3rd Navigation	3rd Engine
Hiroshima	0.5952	1.2308	0.6666	0.8947
Oshima	0.875	2.1944	2.6316	1.1111

Summary

The contents from this seminar was edited and published into the textbook.[11] Then it will be introduced into the common curriculum at five NIT colleges. We also recommend the English study + internship program in the Philippines which is affordable for all students.

Acknowledgment

This program is sponsored by “Maritime human resources developing project” from the Japanese government. The authors would like to express gratitude to All Japan Seamen's Union (JSU) and International Mariners Management Association of Japan (IMMAJ).

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Workshops on the Use of the SMCP for VTS and MRC Centres for the Spanish Maritime Safety Agency (My Practice session)

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Abstract

The session will show a practice-oriented, fast and efficient approach to improving communication skills of non-native English speakers at VTS and MRC Centres. It will present the contents of ten workshops carried out in 2015 and 2016. The main objectives in the workshops were put on the correct use of the word corpus and grammatical structures recommended in the SMCP and the proper use of means to avoid misunderstandings during VHF communication. The session will provide examples for the sequence of exercises which the participants worked through during the workshop. Audio and text samples will be presented to illustrate the methodical approach. Ideas for how to work on the main difficulties which Spanish speakers of English encounter will be given. Anybody working in the field of the acquisition of English as a second language for the purpose of the communication in the maritime field might benefit from the ideas presented although the focus is on the English VHF communication in a VTS and MRC Centre work environment.

keywords*: ommunication skills, VTS, MRCC, word corpus, grammatical structures, SMCP, VHF, exercises, audio samples, text samples, methodical approach*

Introduction

The Standard Marine Communication Phrases provide samples for how to formulate messages in a radio communication between VTS and MRC Centres and vessels in the dedicated sections. This is a very useful basis for managing the communication tasks in a certain VTS or SAR area. However, the words or phrases presented do not cover all the words necessary to successfully manage all jobs required. Depending on the specific tasks given to the Centres in question, controllers have to try to make use of the complete SMCP, not only of the section dedicated to VTS

and SAR operations. If the necessary word or phrase is not provided, the team at the Centre should agree on a word or phrase and test it in their work environment. An approach which shows how to manage this process fast and successfully with some outside assistance, including efforts to improve the pronunciation and the correctness of messages made by controllers, is shown in the following.

Initial Situation

The Spanish Maritime Safety Agency runs 19 Centres along the Spanish coast with a different set of jobs being either sole MRCCs or MRCCS handling a number of VTS or even Port Control jobs. I was invited to hold two 40-hour workshops with altogether twenty participants at the Agency's central training institution. The participants volunteered to take part in the workshop. After their return to the Centres they were supposed to be the contact person regarding English language problems when communicating with vessels over radio. After the workshops had been finished, I was invited to hold a workshop at each of the 20 VTS/MRC Centres. The job was to help all participants to improve their English radio communication skills during an eight-hour workshop. It was agreed to focus on the correct use of the required word corpus and grammatical structures as well as the proper use of means to avoid misunderstandings during VHF communication.

Approach

Step 1:

At the beginning of each workshop a list of communication situations during which the participants normally have to use English via radio, was worked out. The following ten radio communication situations regarding the duties of a MRCC for the monitored area were identified as the typical ones:

a) Vessel adrift after blackout – no danger of grounding

b) Vessel adrift after blackout in vicinity of shore – danger of grounding

c) Vessel adrift within the 12-nautical-mile zone – no danger of grounding

d) Request to a vessel (at anchor or underway) to participate in an helicopter evacuation drill

e) Arranging for the transfer of a sick/injured person by helicopter to a hospital ashore
f) Two vessels running into danger of collision
g) Vessel's request for a sheltered anchor position due to gale warning
h) Emergency call from a pleasure craft after a diving accident
i) Emergency call from a pleasure craft – towage requested after blackout
j) Emergency call from a pleasure craft – boat on fire
k) Informing shipping about the weather situation

Step 2:

The exact wording of each situation was worked out. (The list from a) to j) covers all situations which were mentioned during all workshops. Some Centres nearly never have to deal with incidents involving pleasure craft.) During these discussions it became clear that nearly all participants did not have any problems making use of the recommendations in the SMCP. They knew the recommended words and grammatical structures. Among others, they had very specific questions regarding words and phrases used in situations d) (helicopter evacuation drill), e) (transfer of a sick person) and h) (diving accident). A number of words and phrases they discussed with me are not provided in the SMCP. The participants also knew how to stay in control of the communication using means to avoid misunderstandings during the VHF communication. However, nearly all of them had two problems: 1) the proper use of prepositions of place and 2) the correct pronunciation. Both problems result from the "interference" of the Spanish language with the English language.

Step 3:

I introduced the participants to an area monitored by a VTS/MRC Centre which I created. I made them aware of the proper use of the propositions of place. Then they listened to audio recordings which I developed: the presented examples for communications between the Centre and vessels. We also worked with the tapescript. I used this part to remind the participants of how to use the SMCP's simplified tense system properly. We also discussed in detail how to use means to avoid any misunderstanding during a VHF communication, e.g. message markers and controlling phrases like "I repeat" or "Say again."

Step 4:

There was a discussion about words or phrases which the participants were unsure about and which they had not found in the SMCP so far.

The first example shows a possible answer given by the controller after the Master has asked about how the evacuation drill will go on:

> *Helicopter will lower a rope first. This is for the electrostatic discharge. The rope will touch the water or the deck first. Request: Please do not touch the rope before it has touched the deck. Please advise crew members to hold the rope after it touched the deck. Do not make fast the rope. I repeat. Do not make fast the rope. Then the helicopter will winch down a rescuer, then a dummy and then a litter. The rescuer will fasten the dummy to the litter. The helicopter will winch up the litter with the dummy. Then the helicopter will winch up the rescuer.*

The second example shows a part of the communication between the controller and the Master of the vessel requesting an immediate transfer of a sick person to a shore hospital:

> *Request 1: Make sure the sick person and the accompanying person will carry their passports during the transfer. Request 2: Make sure the sick person will carry necessary medicines. Request 3: Appoint an agent in the port of Newhaven to handle the necessary documentation after the patient's arrival at the hospital. Request 4: Send me your owner's P&I Club address.*

The third example shows questions to the skipper of the pleasure craft to get the necessary information about a diving incident:

> *Question: What is the nearest port in your vicinity?*
> *Question: Was the injured person scuba diving or snorkelling?*
> *Question: How many dives did the injured person finish?*
> *Question: Is the injured person conscious or unconscious?*
> *Question: Does the injured person have a diving computer?*
> *Question: How old is injured person?*
> *Question: At what depth did the accident occur?*
> *Question: What is colour of your boat?*

Step 5:

Based on my illustrations of a port area with vessel in different positions I gave definitions to the participants and they had to make up messages with prepositions, e.g.:

The vessel is at anchor.
What is your ETA in position buoy 34?
What is your ETA at pilot station?
No pilot boat on station.
The vessel is on berth number 4.
Proceed to anchorage.

The Spanish language interferes with English when using verbs like *enter* and *contact*. In Spanish there is a preposition following. Therefore I gave definitions after which the participants had to make up messages like:

Contact me when you pass buoy number 56.
Call again before you enter fairway.

Step 6:

In order to make the participants practice the correct pronunciation of certain sounds I made up funny sentences in English which they had to practice saying out loud. Native speakers of Spanish often have difficulties producing the 'v' (as in vessel) and the 'g' (as in agent) properly because of the interference with the Spanish language. They had to practise for example sentences like these:

The German Master has a very bad habit.
The German vessel carries dangerous agents.
I have a question about the dangerous German vessel.
I have no information about the questions that the dangerous agent asked on the vessel from Germany.

Step 7:

I introduced the participants to a radio communication situations based on my imaginary port – a selection of the situations mentioned above. We worked through the possible phrases and fo-

cussed again on the difficulties mentioned before. I was the Master calling MRCC in the imaginary area. One participant was a controller.

Step 8:

I left the room and called the participant from next door via walkie-talkie. We worked through the situation. I made an audio recording. I returned to the seminar room. Everybody listened to the recording. I stopped the recording to give the participant the chance to correct a phrase or to highlight an important phrase again or to show that the participant has applied what had been discussed before. Then the participants took it in turns to be a controller talking with me as a Master.

Results

After finishing all workshops, a final version of the tapescript of all communication situation (a to k) were sent to all Centres. All participants checked them and were invited to comment on them. They sent comments back to me and I changed the tapescripts if necessary.

I developed exercises which I placed as an appendix at the end of the tapescript collection. I produced audio recordings of the finally agreed tapescripts and sent them to the Centres and made them available as a download on the internet.

Every controller has access to the tapescript including the exercises appendix and the audio recordings and can listen to them and do the exercises if he or she would like to.

Conclusion

Based on the feedback which I received, the presented “hands-on” approach proved to be successful. The participants were pleased with the results of the workshop.

The approach described might be useful to improve the English language communication skills of persons who have to use the SMCP in their working environment, especially to:

- rethink the proper use of known words or phrases listed in the SMCP

- brainstorm and discuss words or phrases which are not listed in the SMCP but which are necessary for the job
- improve the correct pronunciation of English words
- provide a base template for typical conversations in a these persons' work environment
- have an immediate feedback regarding the proper use of newly acquired words or phrases.

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Discipline and Academics - Do They Mix? (Round table discussion)

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Abstract

During a stay in a boarding school the author began to wonder whether the emphasizing of discipline hinders education. The many duties of the cadets and the so called hidden curriculum seemed to require so much time from the cadets that studying became almost impossible. The question therefore arises: do academics and disciplinary measures mix?

In this paper based on ethnographic studies and an interview with cadets, the question about the percieved disadvantages with emphasizing discipline are discussed. The author thinks more insights into the advantages of boarding schools and discipline are needed and therefore wants to invite participants of the IMEC to take part in a round table discussion on the topic. The discussion could be opened with a question about discussing the optimal circumstances to study maritime English.

keywords*: boarding school, academic success, learning outcomes, hidden curriculum*

Introduction

The concept of discipline can mean many things. In this reflection discipline is considered to be of an external kind as opposed to self-discipline. One for this discussion useful definition on discipline is: “control that is gained by requiring that rules or orders be obeyed and punishing bad behaviour” [2]. When I below use the word 'discipline', it is in this sense I use it.

During my stay at an Indonesian MET-institution and boarding school, the question about discipline and learning was one that struck me. “Why is discipline so important, and does it support learning? ”, was what I was wondering.

fig 1 and 2. The focus on discipline was present and visible also for non-Indonesian speakers (all photos by author)

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SDM

Pranyoto: STIP Didik Taruna Dengan Disiplin Tinggi Tapi Bukan Kekerasan

JAKARTA (BeritaTrans.com) – Sekolah Tinggi Ilmu Pelayaran (STIP) Jakarta komitmen menegakkan disiplin dan pembinaan taruna, terutama selama proses belajar mengajar dan kehidupan asrama. STIP harus mampu menghasilan perwira pelaut niaga mempunyai kriteria, tangguh, tanggon dan trengginas.

Untuk mewujudkan tiga program tersebut, pimpinan STIP Jakarta komitmen mendidik dan membina taruna dengan baik, disiplin tinggi api anti kekerasan. "Oleh karena tata tertib taruna (tatibtar) akan tegakkan secara konsisten dan awah pembinaan pada dosen dan ruktur bahkan taruna senior,"

Ketua STIP Jakarta, Pranyoto, MAP menjawab BeritaTrans.com karta, kemarin.

perti diketahui, untuk untu membina dan mendidik

dan mengawasi juniornya selangsung, sehingga peluang terjadinya aksi kekerasan atau kemungkinan tindak pidana lainnya bisa dihindari," jelas Pranyoto.

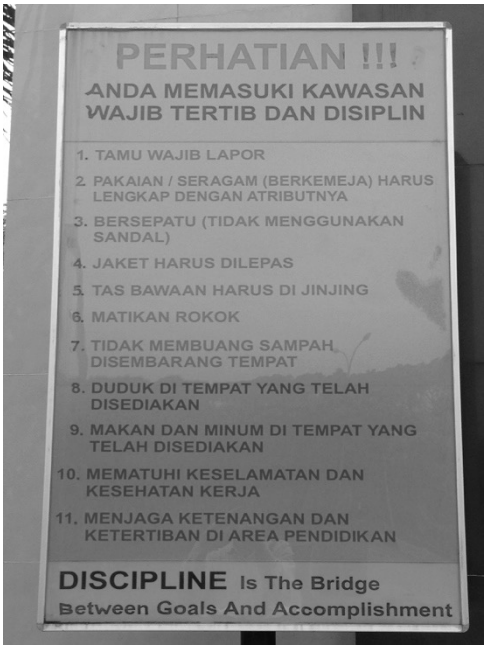
STIP Jakarta sebagai salah satu sekolah yang diasramakan (boarding school) menurut dia, maka seluruh taruna terutama tingkat I dan II harus hidup dan tinggal di asrama. "Selama itu, mereka akan hidup dengan aturan dan tata tertib yang ketat. Mulai bangun tidur sampai tidur lagi sudah diatur dan diatur dengan baik."

"Jika ada taruna terlambat apel atau keselahan lainnya, dikenakan hukum push up atau sit up, lari keliling kampus dan lainnya. Dalam rangka mendidik itu masih bisa bahkan perlu dilakukan," papar Pranyoto.

"Dipastikan, tak ada hukuman dengan pukulan dan tendangan. Kekerasan seperti itu bukannya mendidik, tapi justru membuat dendam

tinggi dan mempunyai ker'ja sama tim yang Pranyoto didampingi Capt. Wisnu Risianto.

Seperti diketahui, melakukan inspe (sidak) di kampus dinas. Mantan Di sesekali datang ke dini hari, untuk



Before continuing my discussion, some background must be given. I want to give three background details to at least slightly enlighten where my thoughts derive from.

At a very early stage during my career as teacher, a discussion at my institution in Finland took place. The Maritime Counsellor from the Ministry of Transport in Finland visited my MET-institution and wanted to discuss students' attendance in classes. This was in 1997 or 1998, and the STCW-95 had barely come into force, if it had, in Finland. The Counsellor was strictly of the opinion that attendance had to be checked and measures taken if students were skipping class. I remember I was against his line of arguing - I thought my duty was to make classes interesting enough for the students to attend. I also thought that if a student already knew what I had to teach, the student could well take an exam and show his or her competence. In my understanding, this kind of competence assessment is, and was, emphasized in the STCW-95 Code. Attendance is not stressed in the Code. The Counsellor's answer to this kind of arguing was:

"Would you like to fly with a pilot who did not attend class"? He stressed external control while I was more into self-discipline.

fig 2. External control

Secondly, my MET-institution is not a boarding school, nor a military academy. In Finland, as I believe in many European countries, and certainly in all Nordic countries, MET-institutions are parts of universities or UAS's and students take care of their own boarding. This means that the institutions are not responsible for the students' well being off school hours, a fact that clearly has an effect on the need for discipline. And I want to stress that I understand that a boarding school must have stricter rules for the students.

fig. 3 Cadets and soldier – soldier maintaining order on campus.

And finally, some of the shipmasters' feedback on Indonesian cadets (c.f. Björkroth & Agasta in the procedures for this conference), stated that the cadets should show "More initiative; More confidence; More activity" and further that: "They do not show enough initiatives and logical thinking." [3] I interpret the feedback as a result of "too much discipline", i.e. cadets have been trained to fully fulfil orders, but at the same time they have become afraid of taking initiatives because they are afraid of getting punished (if they do something wrong). This is where questions concerning discipline and learning results arise: discipline most probably emphasizes the values in a particular context – but what if those values are not important in the context the students/cadets are trained for?

My interpretation above, i.e. that cadets seem to have been disciplined against their own best, and that western or Russian shipmasters expect more individual input, seems to be supported by Geert Hofstede's dimensions for describing cultures. The dimension named Individualism vs. Collectivism is described as follows:

"The high side of this dimension, called individualism, can be defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular

in-group to look after them *in exchange for unquestioning loyalty*. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."" (Author's Italics) [1]

And specifically on Indonesia:

"Indonesia, with a low score of (14) is a Collectivist society. This means there is a high preference for a strongly defined social framework in which individuals are expected to conform to the ideals of the society and the in-groups to which they belong." [4]

The two quotations above, together with the shipmasters' comments, give me the impression that some national cultures, in this case the Indonesian, emphasize behaviour that may not be in line with what e.g European shipping companies (read: shipmasters) expect, hence difficulties with (cross-, or inter-cultural) communication. And the expectations are no surprise: with smaller crews, each crewmember must be able to work independently and sometimes, probably, do things on their own initiative. Then, if, for example, a cadet in a strictly hierarchical environment has been trained to obey orders and not to act independently, it will be difficult for him to suddenly, when coming onboard for the first time, begin taking initiatives and begin trusting his own (logical) thinking. This apparent conflict raises the question: does too much discipline hinder professional development?

It is not only professional development that may suffer, but also the ability to work independently - as was seen in the quotes from the shipmasters. Another of the cultural dimensions Hofstede describes is power distance. In the descriptions of Indonesia two phrases catch my eyes:

"Employees expect to be told what to do and when."

and

"Indonesian co-workers would expect to be clearly directed by the boss or manager … " [4]

These descriptions again explain why the shipmasters express they would expect more initiative and logical thinking from the cadets; the Indonesian cadets expect to get orders and detailed instructions. The masters in turn expect self-propelled seafarers.

So far I have pointed out some features in a high power distance, group oriented culture - to use Hofstede's vocabulary. They do not, per se, have anything to do with discipline, but cultural

features do not come from no-where, but are enacted and re-enacted in the societies they prevail in. Thus, for example, it would appear that in a culture such as Indonesia, discipline would be used in order to emphasize the features described. In a semi-military MET-institution the described features (hierarchy, focus on the group), would be even stronger.

It is also evident that discipline, per se, does not hinder learning, but what it is used for, and how it is used may. If, as described above, discipline is used to underpin behaviour that is not welcomed by future employers, then it is not good. And if discipline is used to maintain order and at the same time hindering e.g. studying, then the conflict between maintaining order and learning arises. At the Indonesian academy I visited e.g. first year students are not allowed telephones or computers in the dormitories, thus effectively hindering exposure to English language during the working days (nights). Another feature hindering effective studying would be emphasizing military, or semi-military activities during school days. Marching, drum-band exercises and similar are good physical activities and the question is not about either or, but rather about the balance - what should be emphasized and to what extent?

fig 4. Achieving exact marching skills takes time, time from studying?

My reasoning for this round table discussion can maybe be crystallized into two questions:

1. 1. Does military style emphasizing of hierarchical following of orders and exact instructions, support becoming a competent seafarer in the international merchant marine? Or does it in fact make it more difficult?

2. 2. Since discipline will no doubt be used to enforce values of the culture in question, does this mean we should try to develop international values for MET?

fig.5: Discipline does NOT prevent cadets and staff having fun together!

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