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JAN HORCK

A MIXED CREW COMPLEMENT

A maritime safety challenge and its impact on maritime education and training

MALMÖ HÖGSKOLA

A MIXED CREW COMPLEMENT

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The students on the front picture do not represent
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Experience leads us to understand that our own world is also a cultural construct. By experiencing other worlds, then, we see our own.

Goldschmidt (1968)

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ABSTRACT

The human factor/human element starts to have a key role in accidents and incidents during shipments at sea. Investigations show that poor communications increasingly are the root for many tragedies. A possible reason for communication constraints is the growing trend to employ multicultural crews. This thesis aims to document this new challenge in the maritime industry and to endeavour to show how the Maritime Education and Training (MET) can address the problem.

The lack of a company crewing policy entails a variation in management standards; it causes confusion. Therefore, it is commonly advised that a common working language be used and expressed in the company policy. It is not only substandard communication that lies behind accidents but also a lack of cultural awareness and "wrong" stereotyping.

This is a worrying situation. Researchers in the maritime field have tried to quantify and describe the risks and identify possible benefits with multicultural crews. Disappointingly, the results show a strong disharmony.

The industry appears not to be capable of coping with diversity or hesitates to balance eventual advantages with eventual risks. The reason could be that past research studies rather confuse the industry, instead of giving useful guidance. The research strategy, that has been used to find pros and cons in multicultural crews, perhaps has not been the best suited. This thesis aims to propagate for a professionally applied inductive strategy to phenomena related to human factor constraints in the shipping industry. This thesis is also urging MET institutions to conduct courses in cultural awareness

and increase the learning goal in English to something more than bare basic.

With World Maritime University (WMU) students as the prime research object, it has been found that studying in a multicultural environment is not problem free but instead creates an opportunity to increase the students' communicative competence. This research study looks at the aspects of psychology, language and pedagogy to conclude that there is a need for courses in cultural awareness.

Most likely, multicultural crews in the shipping industry are an irreversible trend. The solutions presented in this thesis focus on communications and cultural awareness and the point made is that, if courses in these two subject areas are not introduced in MET, a mixed crew will continue to be a risk factor hazarding safety at sea.

The implication of the results, from a WMU point of view, is that extended understanding of different cultures is a needed subject for both students and teachers. The present, high level of study contact time makes the need for such courses even more important.

Keywords: multiculture, communication, shipping, education, teacher, seafarer, context, maritime.

PAPERS INCLUDED IN THIS THESIS

PAPER I

An analysis of decision making processes in multicultural maritime scenarios.

Published: 2004, Maritime Policy & Management, 31(1), pp. 15-29. Abingdon: Taylor & Frances.

Presented: At the Shipping conference [Skipsfartskonferansen], Norges Handelshöjskole (NHH), Norwegian School of Economics and Business Administration; Bergen, Norway, 26 January 2005.

PAPER II

International maritime legislation and model courses.

Published: 2004, IAMU Journal, 3(1), pp. 94-103.

Presented: At the International Maritime Conference, Arab Academy for Science & Technology and Maritime Transport (AASTMT); Alexandria, Egypt, 29 September – 3 October 2003.

PAPER III

Why a qualitative research strategy? A discussion on research strategies, focusing on qualitative research; a challenge for the maritime cluster.

Published: 2004, In: Proceedings of The 5th Annual General Assembly and Conference International Association of Maritime Universities (IAMU), pp. 142-154. Launceston: AMTA.

Presented: At the International Maritime Conference, Australian Maritime College (AMC); Launceston, Australia, 8-11 November 2004.

PAPER IV

Extracts from conversations representing a social constructionist application on research.

Published: 2005, In: Nielsen, D. (Ed.). Proceedings of The 6th Annual General Assembly and Conference International Association of Maritime Universities (IAMU), pp. 407-416. Southampton: WITPress.

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PAPER V

Getting the best from multicultural manning.

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a) The homepage of Vägverket (the Swedish Road Administration) http://www.vti.se/templates/Page____3975.aspx

b) He-alert, the joint web platform of Lloyds Register and The Nautical Institute.

http://www.he-alert.org/displayArticle.aspx?articleID=HE00465

OTHER WRITTEN WORK BY THE AUTHOR AND AUTHOR'S PROJECT PARTICIPATION

The list includes the five papers[1] being part of this thesis.

Horck, J. (1993, October). Sjöfartens Universitet [The University of shipping]. Port of Copenhagen Review, 46 (9), pp. 10-11. (In Danish).

Couper, A. & Horck, J. (1996). Baltic Navigation, Shipping and Trade. In: Platzöder, R. and Verlaan, P. (Eds.) (1996). The Baltic Sea: New Developments in National Policies and International Co-operation. pp. 217-231. The Hague: Martinus Nijhoff.

Horck, J. (1996). Additional Requirements and Guidelines for Tankers and Ro/Ro Passenger Ships. The Practical Implications of the STCW Convention: Crew Response Management. Residential Seminar in Copenhagen, 17-20 June 1996. (BIMCO Shipping course in association with WMU). Copenhagen.

1 A paper is here understood to be an academic work published in an academic journal. A paper will only be considered valid if it undergoes a process of peer review by one or more referees (who are academics in the same field) in order to check that the content of the paper is suitable for publication in the journal. In addition to above a paper is also a research study, in competition with other writers, accepted for presentation at a reputable international conference.

Horck, J. (1996). Assessment of Training/Educational Institutions and Teachers. Practical Workshops on ISM & STCW. Residential Seminar in Copenhagen, 11-14 November 1996. (BIMCO Shipping course). Copenhagen.

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Horck J. (2005, October). Communication skills are vital to safe ship operations. The International Maritime Human Element Bulletin, (9) p. 3.

Author's project participation

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Research person and coordinator, EU research project on Maritime Navigation and Information Services (MarNIS). European Commission Contract No. FP6-2002-TREN-1, ongoing.

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PREFACE

The review of research and related literature contained in this thesis is a support of the argument that lacks of cultural awareness and weak communication skills have been acknowledged as possible factors in maritime accidents and incidents.

A goal has been that the papers should be a wake-up call in the maritime industry and relay this information to appropriate instances and to derive innovative solutions. The results will consist of both objective data about culture constraints, conclusions from research studies and a number of pragmatic recommendations for authorities, shipping companies, maritime education institutions, etc. The expected impact is increased safety at sea by offering courses in cultural awareness or increase the manning complement and giving mariners an education in the English that is more than a postbeginner's knowledge i.e. above basic.

The International Maritime Organisation (IMO) has been the primary international body researching the seafarer as a human element and developing subsequent regulation and guidance in an effort to reduce associated accidents in the maritime industry. Serious investigation into the impact of the human factor on safety of life and property at sea began in 1991 with the launching of the IMO working group on Role of the Human Element. In the wake of investigations still no guidance, codes, recommendations or regulations have been put forward. In 2006 the UK Maritime and Coastguard Agency, MCA, published Leading for safety. A practical guide for leaders in the Maritime Industry where lack of cultural awareness and seafarers lack of adequate English have been an issue for shipowners to take action on. Otherwise, the guidance and

regulations on cultural awareness and communication are blurred in pursuit of economic viability.

There is a lack of systematic accident reporting and causation analysis with regard to both lacks of cultural awareness and communication constraints.

This study is done in a preventive interest with the argument that the industry should not wait for studies to be conducted in the wake of an accident investigation. The study encourages MET to be proactive and, before the legislators tell them what to do, start courses in cultural awareness for crew and teachers in MET. The study also encourages MET upgrading the learning requirements in English to be more than a post-beginner's.

After 15 years at sea and 25 years within the educational field the author has gained interest in issues on multiculturalism, communication and questions with reference to teaching and learning. Instructions and learning onboard and in the classroom have many similarities and in both scenarios there are opportunities to encounter misunderstandings that can be fatal both to the ship environment and to a student in school.

The methods, in this thesis, here called strategies, have been chosen with a wide anticipation that they can contribute to further knowledge and awareness on how students studying in a culturally mixed environment do adapt and learn. The aim is that the information gained in this research study can be applied in Maritime Education and Training (MET) to reduce wrong stereotyping and in a wider perspective contribute to safer shipping.

Not in any of the research studies presented in this thesis there is a clear hypothesis. Instead it could be spelled out that mixed crewing (a multicultural crew complement) is not possible or bound to be a success without crew having a course in cultural awareness. Another success factor could be to change the management style onboard and return to a more hierarchic management instead of teamwork because in a crises situation good single command is necessary.

In the multicultural classroom context the "hypothesis" would be that it is important to establish a fair level playing field in order to give mature students full access to the teacher.

The papers and articles chosen to illustrate the dilemma in the maritime world has been guided by an effort to tell the industry that

an anticipated challenge both onboard ships and in the maritime classroom is not enough studied and that research studies to find out best practise of multicultural environments perhaps should be more focused. By the use of recognised research strategies perhaps a clearer picture will appear on challenges, advantages and disadvantages of a mixed crew complement.

Malmö, 1 October 2006

Jan Horck

1 INTRODUCTION

In many respects, the challenge of globalisation causes the world to merge. An interesting question is whether a merging world order of great dimensions can flourish if a gap between individual countries, different cultures and school systems continues to persist? Is it possible to achieve what we mean by a global industry under such foreseen obstacles? Population movements in the world make this an urgent issue. The movements of people will have a serious effect in the education world and will impel a rapid international harmonization/standard in education. In national Maritime Education and Training (MET)[2] this will be even more accentuated because of its worldwide operation per se.

Another factor, underlining the globalisation efforts being reflected in MET, is the need for usually expensive equipment and simulators that are and, in the future, will be even more so, a necessity in order to give industry-practitioners good education. Maritime nations probably will have to exercise better cooperation, practise benchmarking[3] and share utilization of training equipment. The required level of education and training, according to the UN special agency IMO, will have to be more emphasized.

One of its universal regulations for maritime training, the Standards for Training, Certification and Watchkeeping (STCW) Convention, that was revised and named STCW-95, is a clear indication of an extended harmonisation of maritime education.

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2 Acronyms and other explanations, see p. 185.

3 Benchmarking in the meaning to realise that there are those who are better than yourself e.g. meet your colleagues and discuss best practises.

The European Union (EU) has a strong policy of making a workforce mobility program possible for every inhabitant in the union. Most probably European MET will be centralised to a few highly professional and most modern equipped institutions and this mainly to reduce the high educational cost per student[4] . Other continents or countries in dense regional shipping areas as well as countries with a prominent shipping policy will follow this trend and be more costconscious in respect of the education of seafarers. Seafarers move between shipping companies of all nationalities and this makes it unfair for the countries who invest in expensive education on the assumption that the students will serve in the national fleet. The shipping industry nations will call for a cost-sharing educational program. In its turn, the centralised education will have a positive effect on the harmonization of the education and training; something that is urgently needed and repeated at intervals by IMO. This is not a result of abolishing the common past sentence appearing in many IMO conventions, codes and regulations "… to the satisfaction of the Administration …" (though this is very important too) but rather to optimize the utilisation of for example very expensive maritime simulators of different kinds. Cost-cutting exercises, but not on any activity, are welcome in the industry.

If the above forecasts are put into action, both students and teachers must be able to get to grips with cultural diversity. More and more, universities in the EU start to exchange both students and staff in order to give their students cultural insights. In Paper I, p. 27, an article in Financial Times is quoted where it is written that "…three European Universities have made joint efforts on cross-culturalisation and are convinced that master of business administration (MBA) graduates need an advanced understanding of European business contexts, language skills and practical international experience …". Van Ginkel (2004, p. 12)[5] wrote
"The drive towards global civilization demands that the diversity of the world's cultures is not to be feared of. Diversity in all its forms

4 Educational cost per student (Sweden, 2006): Master Mariner and Chief Engineer about SEK 80.000 per student during three years of study. The industry is covering the costs for onboard training (personal communication with the Principal of Kalmar Maritime Academy, June 2006).
5 Also in Mathews, V. (2002) MBA for Europe's managers.. The article identifies the following three Universities: Warwick Business School in the UK, the University of Mannheim in Germany and Essec in France. http://specials.ft.com/businesseducation/march2002/FT39WKFAI0D.html. Retrieved on 15 September 2006.

enriches and contributes to human development". In the same article van Ginkel concludes: "As the transcontinental movement of students intensifies there is a tendency for incoming students to set themselves apart from the host culture or the other way around. Crosscultural dialogue … needs to be reciprocal. And the first step … begins at home". These statements certainly are relevant for MET institutions as well; whether national (at the time being), EU-centred (in the near future) and perhaps later also other regionally centred MET institutions in the world (in the foreseeable future).

It is generally realized within the shipping sphere that "if there is to be any further dramatic improvement in safety and efficiency… the human dimension must be addressed" (The human element, 2004, p. 7). Education with a focus on maritime training will then be an important pillar for any human element reform. The focus of the education should be on challenging traditional ways of doing things, the hierarchy onboard, teamwork practices, cultural awareness and a common spoken language at sea, English. Attitudes onboard ships and towards shipshore relationships need to be critically examined. If we can get this right during the student's time at the MET institution a lot of benefits will flow from it; primarily safer and secure shipping. In order to comprehend the problem of internal onboard communication[6] and external communication problems (ship/ship and ship/shore) de la Campa Portela (2003, p. 15) writes "… approximately 20 percent of maritime accidents have a communication factor as one of their causes". This is the reality despite the fact that IMO has recognized English to be the international language of the sea. Factors that could hamper conversations are: dialect, intonation, speech speed, choice of words etc.

1.1 Reason, motivation, aims and outcomes of this research

The shipping industry has in recent years been hit by a number of accidents. The reason for many of the accidents has been investigated and found to be the human factor[7]. Time and again, the explanations have been either crew fatigue or incorrect positioning of equipment and navigational aids i.e. ergonometric constraints.

6 In this thesis communication is identified to mean that something has become common for speaker and listener/s; equally understood.

7 The human factor or the human element is two words identified to mean activities that humans do including the surroundings with eventual aids that the humans use to perform.

There might be other reasons for accidents at sea. Recently, it has been discovered that accidents, both directly and indirectly, have been rooted in lack of communication, with misunderstandings as a logical consequence. The crew having different cultural upbringing, a lack of cultural awareness and in addition poor mastery of the English language could explain the reason for such misunderstandings. The explanation of these phenomena is in the following the core challenge of this thesis.

The phenomenon and reason for having a ship manned with a mixed crew complement, i.e. people recruited from many different nationalities and cultures, is nothing new in the industry. The difference between today's and past crew complements is the number of people onboard; the minimum crew has decreased. In many maritime journals and magazines (*Safety at Sea, Motorship, Fairplay, Lloyds List, TradeWinds* etc.) one can find information that for example five general cargo ships, in the middle of the 20th century, each ship manned with about 35 persons, have been replaced with two roll on roll off (RoRo) ships, at the beginning of the 21st century, with about 22 persons onboard each ship. Easily, one can understand that one serious consequence with a small crew, not fully skilled, is that there is nobody to check if an order has been correctly accomplished and an accident can happen. It shall be seen that a solution to the danger of mustering a multicultural crew without prior education in cultural awareness is to increase the number of persons onboard. The reason why it is important to quickly do something about this unfortunate development is that it has increased the risks and hazards to ship safety. The consequence of a small crew complement leads to an increasingly bad reputation for the industry. Human error is human misery.

Until IMO has made courses in cultural awareness and English mandatory and the courses have been ratified by the member states, the MET needs to be motivated and proactive in preparing courses that are essentially voluntary. To conduct courses, although they are voluntary, would be of great interest to the industry. Of course, the courses will give the MET teachers an additional workload. But, the voluntary courses also can be seen as an institutional need because of the ups and downs in the student recruitment to MET. In many countries the MET does not have the deserved support from the

government to equip the institution with modern training apparatus and good teachers to pass on vast knowledge obtained during time at sea. If properly administered, additional courses will give extra funds to purchase and update the institution's teaching equipment; at least until there are, for example, EU-funded MET institutions operating with economies of scale.

The lawmakers have made it regularly clear that inexperienced seaman cannot serve onboard a merchant ship[8]. Equally, it is unwise to have a novice teacher conducting classes to a multicultural student body without giving the teacher prior knowledge in the field of cultural awareness and pedagogy.

1.2 Definitions viable in the concept

In order to obtain a progressive view on this thesis it might be helpful to appreciate a few crucial words and expressions as defined in this chapter and as defined by authors of other academic papers. The words chosen are fundamental in understanding this thesis.

1) Culture/multiculture
2) Ethnicity
3) Andragogy (the art and science of helping adults learn)
4) WMU faculty

1.2.1 Culture/multiculture

During the discussions in this thesis the concept of culture is used, despite its many definitions, often according to context, to define common patterns of significance of human activities. The reason for choosing the concept culture has been governed by a traditional interpretation commonly understood. Engelbrektsson (in Lundberg, 1991, p. 13, author's translation) interprets culture as, "… the picture and style/model of reality that a group of people, carrier of a culture, has adopted. With acceptance the individual has to follow rules for reading and interpreting reality and rules for both accepting and not accepting behaviour within this reality"

8 In 2006, in Sweden, a person that wishes to serve in the merchant marine is required to have a ship familiarisation course and pre-sea training before signing on a ship. Usually the required pre-professional sea training is conducted during the enrolment at a MET institution.

Culture has become an exploited concept, sometimes over-exploited and then it becomes problematic. Hannertz (in von Brömssen, 2003, p. 64) ascertains "… culture is everywhere. Immigrants have it, business corporations have it, young people have it, women have it and even ordinary middle-aged men may have it, all in their own versions". Von Brömssen (2003) points out that culture is constructed, flexible, reconstructed, complex, changeable and identified by great variation and divergent tendencies.

Lahdenperä (1999) concludes that there are many different ways to define the concept intercultural (she prefers this word to multicultural) and asserts that the definition is dependent on the context. All definitions have a common reference to a process of interaction between people with different culture backgrounds. Lahdenperä (ibid., p. 77, author's translation) writes: "In intercultural contexts different cultural backgrounds usually allude to different ethnic cultures". The concepts of multicultural and intercultural have both become paradigms or practices (scientific) as defined by Kuhn, in our postmodern globalised world.

In the future, a school-system that accepts a multicultural student body must be prepared to find a new way to conceive the relationship between personal identities and the policy of the institution. Gutmann (1994, p.8, author's brackets) writes: "Full public (school) recognition as equal citizens (students) may require two forms of respect:

a) Respect for the unique identities of each individual, regardless of gender, race or ethnicity, and
b) Respect for those activities, practices, and ways of viewing the world that are particularly valued by, or associate with, members of disadvantaged groups, including women".

With this it follows that "… a significant part of what makes a culture distinctive is its stock of "characters", it's (sic) culturally most salient identities" (Fairclough, 2003, p. 161). If it is not race, ethnicity or character that is distinctive in the definition of a person's culture, perhaps, it is nationality? There are opinions that a culture not based on the same language or same nationality is no longer identifiable as a culture. The reason is that in order to be able to belong to

a cultural group you must be able to communicate in order to share common values and also to be able to follow laws and regulations that denominate the group. A nation usually has a common language and therefore can absorb and practice the same culture. With such distinctions culture has become a national concern; right or wrong.

In order for a ship to have a certain company culture (policy) the working language has to be understood by all people working for that specific company. The same would be relevant for an educational institution otherwise the students cannot understand rules and regulations issued by the institution and the undertone/interpretation of such rules.

The constraints in the definition of culture/multicultural etc. have been reflected in the daily newspaper Sydsvenska Dagbladet. In an article on Mångkulturåret 2006 an interviewee tells the readers that multicultural is synonymous to enlighten (Redvall, 2006).

The author is of the opinion that culture is a system that makes things in life clear or clearer in order not to include any individual to be subject to doubt on how to act among others.

Because of the many ways to explain culture perhaps there should be no explicit definition of culture? Uexkull used the German word *umwelt* to define "… the physical world that is available as a living space to the members of a species" (Pearce, 1994, p. 301). Then Pearce adds that "Culture is to social worlds as the *umwelt* is to the material world" (ibid.). In fact *umwelt* is social in character. This would mean that people walk in different environments limited by the horizon of the culture, as it is defined. In the same way, Wittgenstein limits his world by the management of his language. Culture is, with this definition, described as a social *umwelt* metaphor. Further in the text, the reader will realise how Bronfenbrenner (1976) stresses how important a person's many culture-labelled environments form a person's world and how this world is being expressed by each individual. This will be important in the following discussion.

The above examples of definitions of culture are discussed to put on record and indicate the difficulties in obtaining an unambiguous definition of culture, and its many compounds like multicultural, interculture etc. Lundberg (1991, p. 14, author's translation) conclu-

des with the expression "… I see culture as a result of an individual's unique contribution to something in common". This explanation covers the meaning and understanding of culture in line with the aim of this thesis.

1.2.2 Ethnicity

An ethnic group is a population of human beings where the members usually identify themselves with a presumed common ancestry. The group members usually have the same culture, same behaviour, speak the same language and practise the same religion. According to Lange and Westin (1981), the group members are born into a specific group and therefore not, by their own will, associate with the group. The group-members share the same culture and identify themselves or are identified by others as belonging (involuntarily) to the group (Tesfahuney, 1999). The definition of ethnicity, as formulated by Tesfahuney, harmonises well with definitions by Lundberg (1991) meaning that the person has fallen into some kind of captivity where pros and cons have to be accepted.

According to Pumfrey and Verma (in Lahdenperä, 1999, p. 91) "The fundamentally distinctive feature of an ethnic group is not its physical appearance, but its cultural heritage and values". It implies that it is not possible to actually observe a person's cultural belonging.

In this thesis ethnicity is not used because in this context it is covered by the concept of culture. It is not odd or something rare to make a synonym of culture and ethnicity. Both words are frequently used in academic writing.

1.2.3 Andragogy (the art and science of helping adults learn)

In most MET institutions, the education is directed at adults i.e. students' ages can vary between about 20 and 50 years[9]. In Paper I and Paper IV adult students have been subject to conversations that have been analysed. Therefore, the understanding of mature student education is important in this thesis. Normally, when educating adults it is wise to adapt pedagogy to be different than the systems normally used to educate children.

9 The oldest student that has studied at the Kalmar Maritime Academy is about 55 years. The average student age is about 30 years (personal communication with the Academy's Principal, June 2006).

> "In practical terms, andragogy means that instruction for adults needs to focus more on the process and less on the content being taught. Strategies such as case studies, role playing, simulations, and self-evaluation are most useful. Instructors adopt a role of facilitator or resource rather than lecturer or grader"
> (Knowles, 2006, p. 1).

The impact of these statements is that adults learn best when they can see the increase in their knowledge.

This wish has also been reflected at WMU where many students love to debate and give presentations. Students that could be described as shy can even look forward to giving presentations and see it as an interesting challenge. An impromptu discussion is perhaps less popular. Therefore, at the end of the two years, in the fourth semester, four weekly seminars are scheduled to encourage students to be on the rostrum and debate on actual and crucial issues in the industry.

In other words, one can define and clarify the above principles of teaching adults with the following practises (ibid., p. 1):

> "Adults need to be involved in the planning and evaluation of their instruction. Experience (including mistakes) provides the basis for learning activities. Adults are most interested in being taught subjects that have immediate relevance to their job or personal life
> Adult learning is problem-centred rather than content-oriented. This makes generalisations more difficult."

It should be mentioned that the method/skill to teach adults is conceptually not very simple and there are several various opinions on how to optimise one's efforts to obtain good results. Equally the number of books written on adult learning is manifold.

1.2.4 WMU faculty

Academic professionals at WMU have contact with students as *facilitators* (according to the author a better word for a teacher's activity in the classroom addressing students who aspire an MSc degree) of information (lecturing and teaching) and/or are supervisors of students' thesis and dissertation writing or solemnly deal with research. In this thesis all are designated as *teachers*.

The author believes that a teacher should not only teach but also educate in the meaning that beside fact knowledge its application and practical use should be equally important to pass on to the students.

1.3 A challenge to shipowners and the shipping industry per se

Often, many maritime accidents that have been reported today, and exemplified in Table 1, are attributed to either fatigue or ergonometric[10] constraints. The included five papers contain different arguments and different angles of approach to view, argue and explain accidents at sea by adding three additional causes that directly or indirectly give grounds for accidents:

a) Lack of cultural awareness,
b) Inadequate knowledge of colloquial English language, with the consequent lack of communication and confusion and
c) Alienation as a result of communication hindrances leading to a ship safety risk.

Of course, there are many other reasons for accidents but a), b) and c) are pivotal in this thesis.

Because of high salaries in so-called developed countries, shipowners in these countries search for labour to man their ships in low-cost crewing countries. In many of these countries the seafarers' professional skill and knowledge are not always up to required international standards and their English is sometimes weaker than necessary to safely work on ships. Consequently, for cost-reduction reasons, competitive survival arguments and an effort to maintain the required safety level, many shipowners (not only European) recruit crew from recognised, reputable and often own manning agencies and own MET institutions. Otherwise, when a ship becomes subject to a port state control[11], the risk would be too high that the ship is detained because of crew incompetence. Discounted manning can result in an expensive exercise. It has not been pos-

10 Ergonomics is the study of how equipment can be arranged in order that people can do work more efficiently and comfortably (Cobuild, 1998); an interaction between humans and a system.

sible to retrieve, from reputable organisations, a clear figure on how many detentions or inspections that have detected inadequacies in crews' substandard language or cultural constraints. Although, it is not advisable to replace a well educated national crew with not well trained non-nationals (for that matter, neither with substandard nationals).

Such reflections have been discussed in Jense (2006, p. 83, author's translation) where it is stated that "First and foremost the results point at constraints with cultural differences and communication problems in certain situations and that this can be a safety problem". As a solution to the problem he adds "… the minimum manning level onboard ships with mixed crew should be higher in number than with a homogenous crew".

In many developed countries seafarers are labelled alien species. The shortage of national seafarers is another reason for shipowners to recruit non-nationals. The shortage of national seafarers can become (read: already is) a real challenge that can cause problems. In shipowners' head-quarters there will be foreigners working that perhaps are not fully conversant in the company's national language. At board meetings such foreigners may cause misunderstandings and consequential delay in decisions.

To the author's knowledge, this is an anticipated problem that is not an owner's major headache today but might be in the near future unless the government supports the industry with adequate and proper education possibilities. Indeed, it might be a problem today but it is never reported as a problem and seldom talked about. Possible constraints are not much known but still it is a subject that could give reason for additional research because one can hear people talk about it. Often people do not want to admit that they cannot communicate or do not understand a colleague; a management issue requiring skills to handle diversity. Seen from different angles this

11 A port state control is an inspection by the national maritime administration that aims at eliminating the operation of sub-standard ships. Since 1982 the Paris Memorandum of Understanding (MOU) on port state control requests an inspection-target of 25% of all ships calling a country's ports. In 1993 the inspectors were given a Target Factor Calculator System to help the inspectors in the selection of ships with high risk factors. In 2009 there might be a new EU directive on ships inspections that will be totally different to the present one. Other MOU's (Asia and the Pacific (Tokyo MOU); Latin America (Acuerdo de Viña del Mar); Caribbean (Caribbean MOU); West and Central Africa (Abuja MOU); the Black Sea region (Black Sea MOU); the Mediterranean (Mediterranean MOU); the Indian Ocean (Indian Ocean MOU); and the Arab States of the Gulf (GCC MOU (Riyadh MOU)) have different rules for inspection

problem is discussed in Paper V during and after an international meeting of shipowners and other stakeholders in the industry. The problems of the human factor need to be brought to a much higher grade of transparency.

In order to illustrate the problem, a few examples on communication constraints and lack of cultural awareness, found in maritime casualty reports, are highlighted in Table 1.

Table 1. Maritime accidents due to language and/or culture constraints

Type of accident	Ship/s by name		Ship/s nationality[12]		Year	Constraints	
						Language *)	Culture **)
Grounding	Domiat	-	EG		2004		x
Explosion	Bow Mariner	-	GR		2004		x
Collision	Fu Shan Hai	Gdynia	CN	CY	2004	x	
Collision	Silja Opera	Several	SE		2003	x	
Collision	Tricolor	Kariba	NO	BS	2003	x	
Grounding	Sea Mariner	-	CY		2002	x	
Collision	Xu Chang Hai	Aberdeen	PA	BS	2000		x
Crew death	Sally Maersk	-	DK		2000	x	
Collision	Tidan	Anglo	SW	NO	1998	x	
Grounding	Algolake	-	CA		1997		x
Grounding	Braer	-	LR		1993	x	
Fire	Scandinavian Star	-	BS		1990	x	
Grounding	Torrey Canyon	-	LR		1967	x	x

Source: Various casualty reports and IMO statistics.
*)Written in the meaning of communication.
**)Bearing in mind that lack of cultural awareness is not clearly mentioned in casualty investigation reports.

Table 1 is short of examples of cultural awareness constraints and that is because casualty investigators, where an investigation is carried out, supposedly have described lack of cultural awareness as a communication problem. It is believed that culture is a psychological barrier to understand a message. The cultural awareness problem is

12 BS Bahamas, CA Canada, CN China, CY Cyprus, DK Denmark, EG Egypt, GR Greece, LR Liberia, NO Norway, PA Panama, SW Sweden

globally recognised with the established working group at IMO by the name *Role of the Human Element*[13] and written reports by the insurance companies (P&I Clubs).

The Braer accident shows, from full tape transcripts, that there were language difficulties experienced during a number of telephone conversations. In the *Scandinavian Star* accident communication problems between crew and between crew and passengers were a significant factor in the fatalities. The collision between *Xu Chang Hai* and *Aberdeen* is a good example on how language can be a barrier to effective communication and where cultural awareness is an underlying factor. In the casualty investigation report it is written "Language difficulties and cultural differences, along with his (Master) lack of practical shiphandling experience in the vessel …" (Report on the …, 2001, p. 16, author's bracket). In the *Torrey Canyon* accident the Master was intimidating his officers and crew whenever the opportunity arose. *Torrey Canyon* is a typical example of a hierarchy-working environment leading to miscommunication. Officers were afraid of communicating with the Master. In *Algogate* it is the same problem causing an accident. The officer on watch thought the Captain had taken command on the bridge by suddenly doing a manoeuvre without first informing the officer of the watch. *Bow Mariner* is the latest accident where the culture barrier clearly was the reason for the explosion; fear for the Captain.

Above is meant to give the reader information on a few accidents where the casualty investigation reports mention that communication or lack of cultural awareness are considered to be a direct or indirect reason for a maritime accident or incident. Some of the accidents show an avoidance of speaking English thus making all involved fail to obtain the full information they should have in order to make a proper decision. It is assumed that many seafarers together with the author agree that the lawmakers, setting rules and regulations, should raise their level of attention and realise the downside of language incomprehension!

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13 Formally established at IMO in 1991. The fact that the working group was established jointly by both major IMO committees is in recognition of the fact that the human element is a key factor in both safety and pollution prevention issues. Retrieved on 14 September, 2006 from http://www.imo.org/HumanElement/mainframe.asp?topic_id=286.

1.3.1 Mercantile shipping in beginning of the 21st century[14]

The movement of goods over water is a historically very old activity. The industry has a name of being conservative. Though, the technical evolution has been a lot faster than the mind of the practitioners. The industry is traditionally globalized and has become extremely complex in modern time.

Continents and countries are linked by the shipping industry and it brings wealth to people on earth. In 2003, cargoships moved about 5,900 billion (10^9) ton of cargo, to a value of about SEK 56,000 billion. The transport work was about 24,600 billion tonmiles. Most of these transports are agricultural products, about 90 percent. The ships that move the cargo are usually specialized dependent on the commodity they carry i.e. tankers (crude oil and products), gas carriers, bulk carriers (dry bulk like grain, iron ore, coal, sand etc.), reefer ships (fruits and meat), container ships (general cargo stowed in containers), RoRo ships (roll on roll off), pure car carriers, truck and car carriers, a number of specialized ships (asphalt, timber, wine, etc.), ferries, cruise ships. The number of commercial ships to carry out these transports is about 40,000 ships. The three biggest shipping nations, i.e. from where the owners come, are Greece, Japan and Norway. Many ships are registered in countries like: Panama, Liberia and Bahamas. These countries are often characterized as flags of convenience. The EU nowadays controls almost 50 percent of the world's merchant fleet. The distribution of ship types is illustrated in Figure 1.

Compared to other transport modes, rail, road and air, shipping is very energy efficient in consumption. This makes the freight cost low and the impact on the environment becomes substantially lower than by using e.g. different road transport possibilities. As an example, the movement of one litre of gasoline, that costs the consumer about SEK 12 at the petrol station, costs about SEK 0.07 to transport. To move a pair of Nike shoes from the production in the Far East to Sweden costs less than one crown of the retail price. For the non-Swede the comparison of the transport of a TV set from Asia to Europe/USA where the shelf price is about USD 700,0 the shipping costs amount USD 10,0. Coffee with a shelf price of USD 15,0 for a kilo costs USD 0,15 to transport and a bottle of beer that

14 Statistics and facts in this chapter have been retrieved from the Scandinavian Shipping Gazette "Sjöfartens Bok 2005".

costs USD 1,0 costs USD 0,01 to transport. Bulk shipping costs have increased about 70 percent in the last 50 years. US retail prices have risen by almost 700 percent[15].

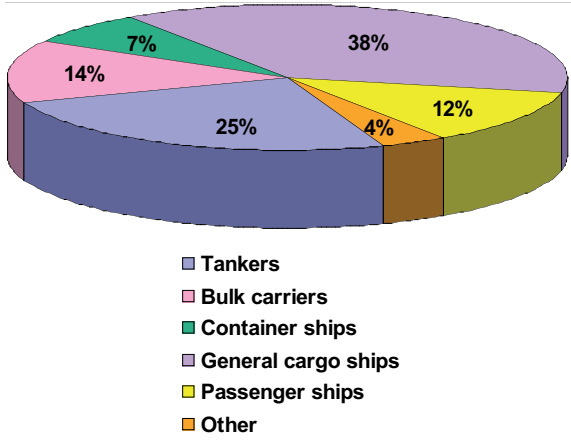

Figure 1. Different sectors of shiptypes as a percentage of total number of ships in the world fleet on 1 January, 2006. Source: Lloyds Register Fairplay

Measured in weight about 70 percent of the EU export went on ships. Between EU countries about 30 percent is moved with ships. There is an extensive research carried out to assure that ports, to ships for transport, handle more cargo. The EU has an extensive programme (the *Marcopolo* project, the motorways of the sea) to shift land transport to shipping.

The quality of world wide trading ships varies a lot. In order to assure that the ships comply with prescribed standards and to international standards in international trade the Maritime Administration in the flagstate (the flag the ship is carrying) do flagstate inspections within certain intervals depending the ships age, trade etc. In addition the Maritime Administration in ports that the ship calls inspect ships in what is called port state control. In addition to prescribed inspections and controls the shippers control the ships (vetting inspections by the oil majors), insurance companies inspect

15 The USD references have been retrieved on 20 November, 2006 from www.shippingfacts.com.

ships, labour unions do their controls, classification societies on behalf of the flag administration do controls/inspections etc. During a ship's port call the Captain often has to attend many such inspections. When the ship is in a port perhaps the crew, including the officers and the Captain, instead deserve a good rest after many days of bad weather at sea.

Under such conditions one could ask: is it a future at sea? To become a seaman usually is a lifestyle and not only a work opportunity. The work is coloured by internationalism, safety and environment. In order to be competitive shipowners from industrialized countries, at least Swedish owners, have to be operated with high efficiency and with competent crew. This demand requires a high demand on education and competence development. Work onboard requires crew to take higher responsibilities and be able to cooperate i.e. work in teams. To be authorized or licensed to handle a ship and its cargo, as an officer, both theoretical studies and long work practice are required.

The national Maritime Administration of the ship's flag determines the number of crew and its qualifications. The crew size varies with the ship's size and its trade pattern. The crew is usually split in three sections or departments onboard. In the deck department people are occupied with the navigation of the ship, cargo handling and ship's maintenance. The leader is called the Chief Officer. The department also include an additional one or two officers and three to five ABs (Able Body seaman). The engine department includes the technical leader the Chief Engineer and one or two engineers and a few motormen. The third department looks after the catering. In this department people are working with the feeding of the crew and adherence to the crews cabins. Beside the department leader, the Steward, sometimes also being the cook, about one or two other persons are working. Of course, the number of the people working very much depends on the total crew. Sometimes the ships also have cadets or apprentices to work and learn onboard but these are surplus to the stipulated minimum crew.

With the above number of people the ship becomes a small society. The leader of them all is the Captain or Master and he is a person with nautical experience; he is a navigator, a Master Mariner. The Captain is also responsible for the administrative work onboard

(budget, planning, leadership) that on Swedish ships have been delegated to him by the owner.

Some people onboard have watch duties and some work only daytime. The deck department is usually divided in watch functions. There are two systems in practice: 1) watch work in four hours and off watch in eight hours or 2) on watch six hours and off watch six hours. The time spent onboard vary from country to country but normally crew is onboard for six weeks and then off duty for six weeks. When crew is onboard they are on duty 24 hours. On non Swedish ships the duration onboard could be longer but then also the salary is higher.

There is a general worry that there will be an international shortage of crew in the near future. In the Swedish merchant marine the average age is high. Some of the young people that have decided for a career at sea change their mind and seek work ashore. The industry needs people with practical background at different occupations ashore.

Sailors recruited from EU and from countries belonging to the Organisation for Economic Cooperation and Development (OECD countries) are becoming an increasing minority. The majority of seafarers come from Asia and countries like the Philippines (20%), Indonesia, India, China, Vietnam etc. and also from the Baltic States, Poland and the former Soviet Union etc. The labour mobility is totally globalized.

The shipping world is organized by the International Maritime Organisation (IMO), the International Labour Organization (ILO), the European Union (EU), the World Customs Organization (WCO) etc. The most important concerns for these organisations are the fundamental aspects of safety and environment protection. About 800 major international conventions, codes, recommendations, rules, regulations and guidelines safeguard that a professional transport job is carried out. These organizations have no sanction authority; it is tied to national sovereignty. There are about 175 flagstates in the world with varying competence and quality and with varying culture and practices regarding safety, safety related matters, environment concerns and education.

The control of a flagstate's ratified instruments is usually carried out by Classification Societies (95 percent of world tonnage) who do

the work on behalf of the flagstate (a delegated work). Some other important actors in the industry are: P&I Clubs (insurance companies), cargo owners associations, trade unions, management companies, crewing agencies, shipping agents, sale and purchase brokers, training institutions and not to forget the shipping companies themselves and their owners. All of above and several other organisations have their own views on safety, environment protection, education, crew compositions etc. A common interest for all stakeholders is cost reduction. A key parameter for cutting costs is employing less people onboard, hire crew from low cost countries, hiring crew from several countries (mixed crew complement), increased technology and move faster.

The education to become a seafarer varies dependent on work position onboard. In Sweden, an AB and a Motorman are educated within the framework of the three-year *gymnasieskolan*. In addition there are a few other alternatives to study that can make the student eligible for further studies at a Maritime Institution (Merchant Marine Academy).

The theoretical knowledge to become an officer can be obtained at Maritime Institutions. In Sweden there are two Institutions: *Shipping and Marine Technology - Chalmers University of Technology* in Göteborg and at *Kalmar Maritime Academy*. Completed studies give 120 academic points (ECTS 180 credits, European Credit Transfer System).

Seafaring has become a high technology person's skill carried out by men. The number of women is gradually growing though it is a very tough job. Isolation and loneliness are major problems because of the small crew. Fatigue has become a safety problem and occupational health problems are frequent. The industry, from an international point of view, is trying to cope with new ideas that perhaps have not been properly founded; the issue of crewing is one of these challenges.

1.4 A challenge to maritime education and training (MET) institutions

In the past and in many countries, a longstanding and notorious habit of MET has been, and perhaps at some MET institutions still is, that of the habit of waiting to be told what to do. With the

STCW-95 Convention came an opportunity and a need to be proactive[16]. The MET institutions should, on own initiative, start courses on issues that tend to become a difficulty for the industry. The mission of MET should firstly be to serve the shipping industry, not for the Maritime Administration to show that they have a functioning MET institution. Certainly, it should not be to gratify their own workplace but to assure the national Maritime Administration that knowledge and skill is passed on as stipulated by the rulemakers and requested by the industry. The MET should also adapt their courses to satisfy the individual students and to meet their wishes to build up a career within the industry and this also after a career at sea. This is why in Paper III it is pleaded and recommended that courses should be conducted in:

a) Cultural awareness, as recommended in a future presumptive IMO model course on the same. If not, wrong stereotyping will continue in the industry.
b) Extensive English language covering more than the need for managing safety aspects and work practices. If not, seafarers might be alienated and then constitute a safety risk.
c) Bridge resource management (BRM) and teamwork. If there is no BRM-training misunderstanding of the concept will mean that many Captains/Masters will continue to think aloud and believe he is team-working (Paper V).

The consequences of not incorporating the above subjects into the curricula of becoming Masters (Captains), officers of the watch and ratings will be further discussed.

These courses should be repeated, at regular intervals, because people have a tendency to forget. Repetition becomes more important when we do not know if the eventual power of cultural diversity hinders or endures understanding. Because of lack of knowledge of behaviour patterns in multicultural settings teachers should be careful to standardise activities and procedures when the student body is culturally diverse.

16 A proactive MET is a natural consequence of having obtained a quality assurance (QA) award. A good management system should be subject for regular revisions and not be static.

Some education institutions, in the world, already conduct such courses but must intensify them to achieve even better understanding. If the IMO includes the above courses in the curricula of an amended STCW it will become a mandatory accomplishment for the countries that ratify the instrument. As per 31 December 2005, IMO reports that about 99 percent of all maritime UN member states had ratified the STCW-95 Convention and become contracting states.

The MET providers themselves have to be more proactive because they are best placed to address this serious situation.

1.5 Author's contribution to wider understanding of the human element in shipping

With this thesis the shipping industry will be more aware of an industrial difficulty and hopefully will take the issue under serious consideration. Maritime literature and maritime casualty investigation reports more and more find that human relations on a ship, before an accident, were not as they should be according to good seamanship or/and social relationships. Bad relationships have often been the result of bad communication, followed by misunderstandings rooted in a lack of cultural awareness. However, the crucial point is that cultural awareness and cultural understanding must be embedded in the lectures during the student's time at the MET institution. With "proper" stereotyping misunderstandings and misconceptions will be reduced and safer shipping will be a logical consequence.

With the five papers, and additional research, the industry, including the shipowners but in particular the MET institutions, hopefully will realise the need to start and to prepare themselves to incorporate cultural awareness into the curricula and also propagate better learning in the spoken English language; something more than needed for managing crises situations. With the minimum English standard, as required per today, the seaman becomes alienated and therefore directly a safety risk.

It should be mentioned that Admiral Mitropoulos, Secretary General of IMO, has declared his vision, for his time in office, to focus on *the human element*. Grey (2006, p. 4), chief editor of Lloyds List, wrote and quoted the Secretary General: "… how can anyone ignore shipping when more than a tonne of cargo is carried

for every man, woman and child on the planet". Most important is the actual seafarer who does the job of moving cargo on the oceans of the world. He or she needs to travel in style, like the cargo they are set to move, and be able to understand each other and be able to communicate in a harmonised social environment.

1.5.1 Author's pre-comprehension

The textual analysis of conversations, from a specific sample being the subject for research, very much depends on the researcher. His or her professional and academic background together with gender has significant importance for the reader evaluating the thesis's validity and reliability. The researcher's gender has meaning because it can have an impact on or influence the respondents' answers. Naturally, the researcher's attitude to the subject also has an impact. According to Roald (1994), when talking in a multicultural setting there is a danger of ethnocentrism involved. The reader has to understand that the researcher's objectivity is often difficult for him or her to sustain. Researchers have their own view with the risk of making their research subjective. Therefore it is important for the reader to be aware that most findings in the research are interpretations and thus subjective. Therefore, to know the researcher's background should be a supportive element in an evaluation of the thesis. The above awareness becomes more important when the research strategy is inductive.

In the effort to understand the whole you have to understand its parts (Alvesson and Sköldberg, 1994). A partial understanding includes the author and the context of observation including the historical context of the author. The interpretation or understanding process is connected to author's empathy and how empathy has been developed. This is the reason why the reader has to understand the author and the conditions or base on how he/she has developed conclusions etc.

Being a Master Mariner, sailing for about 15 years on Swedish registered ocean-going ships with mixed crews, the author's understanding of maritime problems and human resources has not passed unobserved. In addition to actual onboard service in different positions the author has passed a two-year teacher course for teachers at MET Institutions. In Anglo-Saxon terminology it would compare

to an Extra Master. The author's grade transcript contains the two major subjects of transport techniques and navigation. These two years were completed at the University of Stockholm. Presently the author works as lecturer at the World Maritime University (WMU) where duties, besides teaching a multicultural student body, (average age 35), also comprises the setting up of academic programs for student field studies, mainly in Scandinavia and Europe. At the time of this study the author has been working at WMU for 23 years. Two years before taking up the employment at WMU the author served as teacher at the University of Lund, Department of Maritime Studies. The duties were mainly teaching and examining Master Mariners, Officers of the watch and organizing short courses, together with the Swedish International Development Cooperation Agency (SIDA) and IMO, in ship safety and environment protection. These courses were conducted for a multicultural student body. The author has contributed with several papers, mainly on maritime education, at international seminars at e.g. BIMCO, International Maritime Lecturers Association (IMLA), International Association of Maritime Universities (IAMU), Swedish National Road and Transport Research Institute (VTI) etc. The author is visiting professor at IMO's International Maritime Academy (IMO/IMA) in Trieste, Italy, and at the TÜW Academy Middle East in Abu Dhabi, UAE. The above activities have given a good understanding of multicultural/multilingual working and studying-conditions and they have been a part of the cause to arise an interest in the research subject.

As a summary of the above, the author's contact with people from other cultures than born into has occupied all his working life. To work under such conditions is very rewarding for one's own self-esteem. A mariner's eye must be open to change, not only changes in the weather and onboard constraints, but also for changes in human behaviour and its impact on the welfare of those entirely dependent on an individual. Without going too deep into the subject it can be said that working together with Asians, Latin Americans, Africans, Australians and also crew from south Europe is quite demanding on the person being in command of such a blend. One must always be alert to what people really mean when they express themselves. In particular, this becomes important when giving orders and in situations of crises. Of course, this does not become easier when collea-

gues are born in a culture that is different to one's own and have a mother tongue different to the generally accepted English language at sea. Fiske (2004, p. 18, author's translation) formulates this: "… the meaning is equally embedded in the culture as in the message". Instead of learning the hard way some pre-knowledge would make life easier and lessen risks for those assigned to work at sea and not naturally able to accommodate themselves with foreigners.

Forsman (2002) adds that in her experience elderly researchers as well as very young researchers do give a more objective picture of the research than a person in the midst of a career or who have positions to defend. The statement by Forsman has been added to make the reader concerned about the validity of this report.

1.6 Thesis arrangement

This thesis has been divided into nine chapters that end with the connected and concluding chapter "Conclusion and discussion".

Chapter 1, "Introduction", gives the reader the reason for this thesis, bearing in mind the situation at MET institutions and onboard merchant ships regarding inadequate English language knowledge and lack of cultural awareness in a context of cultural mixing. Together with definitions of a few concepts, important in this thesis, the chapter contains general remarks on challenges for stakeholders in the shipping industry when working in a multicultural teacher staff/crew complex. To realise the importance of communication and cultural awareness a few recent examples of maritime accidents have been included. This chapter gives the reader the possibility to judge the reliability of the conclusions by getting knowledge of the comprehension/knowledge of the author; the researcher.

Chapter 2, "Communication and communication constraints", discusses the challenge of talking and making yourself understood in a second and/or foreign language. It is believed that seafarers need to have an English-speaking skill in excess of a post-beginner's level. Included in the chapter is a subchapter on the importance of interpreting behaviour as a means for transmitting a message.

Chapter 3, "The challenge of multiculturalism", elaborates on the difference between a mono- and a multicultural student body and its impact on teaching and learning processes. In many countries the teacher is seen as a "guru" and in other countries as a colleague. The author discusses power distance and the impact of stereotyping.

Chapter 4, "Learning and teaching", concerns a student's learning process. A student's cognitive style is dependent on the culture she or he originates from. The impact of both teacher's and student's stereo-typing and existing power relation are issues that have impact on a lecture outcome. Fair assessment of students being taught in a cultural mix apparently needs to be discussed and has been one of the subjects for queries during the conversations with students.

Chapter 5, "Maritime education and training (MET)", contains a short description on international recommendations on maritime education. What expectations do the industry and the students have on the education for professional mariners? Who are the students enrolling in national MET? In order to verify the need for cultural awareness a few words have been focused on the EU declaration on workforce mobility; one of the five pillars of the EU.

Chapter 6, "A short presentation of the five papers in this thesis", adds the reason for the papers selected. The selection forwards messages to the shipping conglomeration that researchers need to take account of inductive research strategies and that the shipping industry should be aware that lack of cultural awareness and inadequate crew English more often is the direct or indirect reason for accidents and mistakes at sea and perhaps also in multicultural classrooms. Primarily, Chapter six is a short recapitulation of the results, findings and statements in each of the five respective papers.

Chapter 7, "A general overview of strategies to analyse research data", aims to give the reader an overview and explanation of the research strategies (methods) used in the included papers. For the reason of clarification the difference between constructivism and constructionism has been added. The generating theory is induction, using qualitative, data i.e. an assertion on discourse analysis is unavoidable. Bronfenbrenner's system of emphasising the students' milieu, contrary to a laboratory research, has been extended because it has also been an assumption in the research strategies used in a few of the papers.

Chapter 8, "Research study strategies used in the included papers", elaborates in more detail on the way of finding meanings, opinions, feelings etc. from conversations with students. The chapter also incorporates the research target, the WMU students, and the prime discussion topics during the conversations.

Chapter 9, "Conclusion and discussion", is a connected discussion on, and a general expansion of, the results from the papers. Included is a discussion on paper validity and reliability or better expressed with terms like transparency, coherence, content and fruitfulness.

The included five papers, of course, will give a fuller explanation than what can be done in this thesis. The reason for choosing the selected papers is discussed in chapter 6.1. The papers have been referred to and indicated with roman figures: I, II, III, IV and V.

The remarks and observations disseminated in this thesis are the result of the author's thinking, observations, conversations, notes from media, other studies and listening to practising seafarers and students at MET institutions and at WMU.

The footnotes have been inserted in order for non-academic shipping people to better understand the concept.

This thesis includes four Appendices:
Appendix 1. International[17] Maritime Organisation, IMO, a rule-setting UN special Agency.
Appendix 2. World Maritime University[18], WMU, an apex IMO maritime education institution.
Appendix 3a. First year: Grade distribution between 2001 and 2005; gender.
Appendix 3b. Second year: Grade distribution between 2001 and 2005; gender.
Appendix 4. Approvals to use the papers drawn upon in this thesis.

The reason for this thesis arrangement is to enlighten the reader of the five papers, add remarks on the papers and support the papers with additional facts and useful knowledge in order to grasp the concept and message the author wishes to pass on to various stakeholders in the shipping industry.

In order to facilitate the reading of the thesis the author has made references to the included papers whenever there is a reason for it.

Debate, criticism and discussions are central in modern science. To impeach and call in question have become driving forces to develop

17 See Appendix 1
18 See Appendix 2

knowledge according to Sohlberg and Sohlberg (2001). This is the reason why Papers II, III and V are included in this thesis. The author has endeavoured to show that these problems, or challenges, that are discussed in this thesis have a multifaceted character and that nothing should be taken to be something that is for certain.

The writing and presentation of the chapters in this thesis are perhaps not *comme il faut* but the reason for the style of writing is inspired by Kvale, Hartman, Bergström, Idar et al., Potter, Patton and Flyvbjerg, to mention a few, who are of the opinion that the writing in a report of a research based on inductive strategies using qualitative data should awaken an interest and make the reader eager to read more on the issues discussed. The aim of the research study is to understand not to produce a proof. A result of this statement is that the report-language should be of free choice by the reporter/the researcher. The question then arises on how to awaken a reader's curiosity. A recognised custom is perhaps not to add statements, discussion topics or questions before the reader comes to the chapter of discussions and conclusions. The reader will find some of the opposite in this thesis. To give an author's opinion should also be addressed at the end of the thesis but the reader will find some of such in the subsequent chapters for the same reason above.

2 COMMUNICATION AND COMMUNICATION CONSTRAINTS

Crosscultural problems can easily be explained by studying the way a student has learnt another language and by his or her cultural adjustment skill. A typical action taken by good language-learners is to satisfy a desire to become part of a certain group. He or she is usually motivated by a wish to learn an added language in order to have status or simply to be able to understand the world by listening and talking in the new language.

If a person does not understand the system of social interaction in another country, having a culture different to his/her culture he/she easily can become suspicious, withdrawn and also hostile in behaviour. The interaction with the other can be a painful trauma. In Paper V the author discusses these phenomena and the human reaction of a person not being able to keep up a conversation with fellow crew members; leading towards an alienated seafarer. The paper creates awareness of the impact of such behaviour and human predicament for safety onboard ships.

Chapter two has been given additional room in this thesis because language and interpreting language are fundamental phenomena in theories and strategies built on hermeneutic[19] philosophies and discourse analyse. It will be understood that the efforts and constraints in understanding meaning are not given by self-evident formulas.

19 Hermeneutic: to draw a meaning out of text (exegesis). The tradition of hermeneutic understanding is unfamiliar to explaining and theorising science (Alvesson and Sköldberg, 1994). It is a revealing act of truth.

2.1 Language

A social constructivist view of communication assumes that people interpret and create their social world; their reality. Language is the tool we use to create the reality in which we live and to coordinate our world with the world of others. Meaning is created in interaction between human beings (Potter, 2004). The truth[20] of moral philosophies (ethics) and science is built on language metaphors and not on facts coming from nature. With this, it follows that meaning also is built on social circumstances, values, criteria, interests, attitudes, and social practices. With a philosophical view on language, Wittgenstein puts an emphasis on language linked to action and to meaning. Without being categorical one could say that all activities and beliefs around an individual are dependent on language and how words and sentences have been absorbed and retained.

One has to understand an uttered sentence in relation to the situation and environment when and where it has been expressed. Evidently, in order to understand the spoken word a listener has to actually participate in and be present in the context. It is thus that rhetoric becomes the human being's option to participate in creating the world. People both create language and are formed by language. The same is true of writing. With our writing and speaking we verbalize our visiting card. We learn our language by listening and imitating but what we hear we interpret and sometimes keep. In this way it forms the individual and further it labels us in our behaviour and generates further utterances. "Language is not a transparent medium for conveying thought, but actually constructs the world and the self through the course of its use" (Wetherell & Maybin, 1996, p. 220). We often have our understanding of a certain phenomenon from some source we have attended during our visits to the many environments and contexts that we undergo in life.

From the many environments, that the human being acts in and is exposed to, he/she often expresses an opinion at second hand. By

20 Truth is a difficult word with many undertones and meanings. In this thesis the reader will discover the world in different contexts. A definition that is valid throughout the thesis is formulated on p.33. To exemplify the problematic with truth recall the dialog in Shakespeare's Hamlet: HAMLET: Do you see yonder cloud that's almost in shape of a camel? POLONIUS: By the mass, and 'tis like a camel, indeed. HAMLET: Methinks it is like a weasel. POLONIUS: It is backed like a weasel. HAMLET: Or like a whale? POLONIUS: Very like a whale (Act III, scene II). Polonius not only tries to please Hamlet he also has a different connotation on what they see.

doing this, the question arises whether what he/she speaks is genuine or only an answer for the sake of answering.

There are many theories on languages, how human beings use their native language and how languages are learnt. Chomsky (2002), in his theories and as a central issue, is firmly convinced that the human being has a specific and born capacity for languages. When we apply defect elements in the language e.g. hesitations, wrong pronunciations, memory mistakes, omissions, etc. these elements are dependent on and originate from different systems in our surroundings. When we use these defect elements the information received becomes corrupt; it gives the receiver a wrong picture of the other person's real view of the world; the view meant. Of course, this has a problematic effect when analysing talk that has been transcribed. What is and is not the truth?

At WMU, it is a fact that higher level bilingual students sometimes have problems when they express themselves in essay writing or any written assignment. They have to draw on their whole linguistic repertoire. The dilemma comes when they have to find idiomatic expressions to make their text academic in style. When teaching, the teacher should consider this dilemma that some students carry with them, especially when they are asked to write. The teacher will find that the exploration of the relation between language and the respective culture/s behind the language is quite cumbersome. In relation to this, Bourne (1998, p. 57) arises the question "… who are the knowers in relation to contemporary and changing cultures and language use"? This is an interesting and relevant question in this context but perhaps beyond the scope of this thesis.

A correct understanding of words is practically exemplified with the following: Every year, at WMU, most students have difficulties in understanding the difference between *discuss, explain and describe*. These three words often appear as part of introduction phrases in assignments and exam questions. The teachers in the English and Study Skills Programme (ESSP) explain the difference in the meaning of these three words before the professional courses start, though the meaning of these three words still remain confusing for many students. One should add that this problem of semantics and its syntax application is complex both for native and non-native English speaking students.

Another example from WMU is the student wishing to ship bulk cargo. The author understood it to be loose cargo like serials, sand, coal etc. Though, the students expressed a wish to ship a lot of cargo. A few minutes of valuable time and a lot of words were spoilt. One can imagine the consequence of such lack of communication if it appeared in an exam, in the boardroom of a shipping company or at a cargo broker's table.

Teachers, therefore, need to be responsive to students' different cultures and languages and the change in both; and not forget to respect identities that come with different social domains. Particularly, it is important to be aware that some spoken sentences and wordings are conventional and therefore foreseeable. In Fiske (2004), such sentences are called redundant. However, a message with low prediction, an entropic message, contains a lot of information. Fiske also writes that the English language is 50 percent redundant. About half of the words (but not any words) can be omitted in a message and still the message is understandable. An increased redundancy will minimise eventual communication problems in an entropic message. For better understanding, a good teacher is aware of the redundancy phenomenon when addressing the students. Special attention should be taken of the impact of understanding that this phenomenon has; especially if the speaker has English as a second or foreign language[21]. Depending on the student's culture the teacher should realise that the students can have another denotation of what was said than was originally meant. The same occurs when an interpreter is influenced equally by what has been said as the person saying it; a different connotation.

Paradoxically, the function of language can be a part of and sometimes even a hindrance to social life. Language is not only syntax, semantics or phonetic rules. Instead, language is seen as "strategies for orienting and manipulating social domains of interaction" (Mignolo, in von Brömssen, 2003, p. 28, partly author's translation). This is an additional issue that teachers should pay attention to when communicating with students.

If language provides the structure and content of our thought, then in a fundamental way what we say is what we think (Burr,

21 Second language (ESL) and foreign language (EFL) are expressions explained under the heading "Acronyms and explanations" in the end of this thesis.

1995). This is a universal understanding when interpreting a conversation. It is fundamental when giving an order. If an order is not repeated the way it is understood (for example the way it has been anticipated how something should be done) there will be a mistake if the sender has meant something else. In a course on cultural awareness, the MET teacher therefore must make prospective officers aware that the connotation could be different. This is of course a problem when studying a foreign language. In a maritime context a misunderstanding could end up in death or a very expensive loss. This is why the English spoken onboard a ship has to be more than bare basic.

Language varies not only between individuals but so also within one and the same individual. In the situation of the latter, perhaps, even more. It is a great challenge to find the reason for a person's judgements and way to form an opinion from his or her communication. To judge if a person is communicatively competent it depends on who makes the judgement. Of course, it can make a paramount difference when analysing what a person has said. It is an important skill factor that gives a person the right to speak and analyse/judge what another person said.

Linguistics resolves the discussion and measurement of speaking-variables such as: accent, rate, intensity, verbal immediacy, powerful or powerless styles and lexical diversity. Lexical diversity is easy to measure compared to the other variables. Fiske (2004) concludes that persons with high lexical diversity are not always considered to have a more effective communication capacity. On the contrary, because of their range of vocabulary, they could impose an even bigger threat to safety.

Persons in subaltern positions typically use polite phrases, emphasise, use extra words, hesitate, use direct gestures, make statements followed by a question and use rising intonations. On the other hand, a language characteristic of power seams to be fluid, concise, smooth and direct. Some people believe that the style of language has a bigger impact on social status than e.g. gender. These observations are important for teachers, ship's officers and discourse analysers to be aware of in their various respective positions and work. In the interviews reported in Paper I and Paper IV the subaltern dilemma has been reduced by an established friendship between the interviewer and the interviewee.

When judging speech the context is very important. There is both a social dimension in the sense that the speaker is sympathetic or not sympathetic to the subject and a competence dimension in the sense that the speaker has good or bad knowledge of the subject. The conversations in Paper I and Paper IV are carried out in an office at the university premises i.e. the environment did not deviate from the conversation topics. A laboratory study would change the natural setting of the subject and this could have an impact (probably negative) on the conversation as such. Equally, the students very much anticipated and looked forward to participating in the research. The fact that the knowledge of the subject was based on own experiences and impressions and not knowledge-based added to the appeal. The participation in the research had no signs of conundrum to the students.

The sound of speech is a non-verbal communication parameter. Loudness, melody, tempo, intonations, articulation, pronunciation, hm-sounds, laughter and pauses are all paralinguistic signals. Usually, the voice of the speaker is adapted to the situation. Every person is being placed in a social category based on his or her level of voice and phrase-melody. The way a person talks, more than anything else, is the foundation for how others judge that person. Motluk (2002, p. 34) wrote: "you are what you speak". Motluk, a *New Scientist* reporter, also alerts us that the mother tongue really does affect the way the world is seen or viewed. This statement underlines the statement of Chomsky: language does matter, in togetherness with others. Although, a new idea on the importance of language is that the ability to talk owes more to shared genetics than varying cultures. Experts in the 21st century being convinced that our brain is mainly shaped by experience promulgate this statement.

To use expressions that use litotes is not advisable. It confuses to express oneself with double negatives and the teacher should, for instance, avoid saying *it is not unusual* when he or she wishes to say that *it is usual*.

From the above it is realised that language has many impact-factors, controllable and uncontrollable, known and unknown, that require some manoeuvring when being interpreted.

2.2 Constraints in talking and understanding a foreign language

Despite what has been discussed in the previous chapter, language is undoubtedly the greatest facilitator of communication. For a number of reasons English has become the language of the maritime industry. With multilingual crew, mainly coming from the Philippines, India, China, Indonesia, Poland, Ukraine and lately Russia etc., one could speculate whether English any longer is the appropriate language at sea. Despite possible arguments to the contrary, surely English will remain to be the maritime language. As an example of lack of communication the BIMCO Bulletin (2004, p. 2) reports that in the past it was possible that a VHF (telephone) conversation could be as follows: "…. One officer declared intention to an approaching ship "I'll leave you to port" was interpreted by the other ship as "I'll alter course to port". The damage was substantial…".

Like in the examples above the EU contracted MARCOM (1997)[22] project gives a number of examples of lack of communication at sea. Still, almost ten years later, the industry experience constraints in exchanging information between ships and between ship and shore.

Exchange of messages at sea should follow the recommended IMO English[23] "but in practice it is not always the case. English speakers insist on speaking their more complicated colloquial tongue usually at speed and … with no attempt to ascertain whether there is any meaningful comprehension" (ibid.).

In a situation of emergency or panic, like when a ship is in distress, the crew that has been assigned to safety stations must be able to keep calm and express themselves in a correct manner. Moreby once launched the famous expression: Everyone panics in their own language. Misunderstandings in such situations turn out to be very serious when sailing with a polyglot crew, a multilingual complement. A recent example is the *Scandinavian Star* accident, see chapter 1.3.

In the maritime industry the lack of communication between ship and shore and between ship and traffic control authorities has become a problem. Misunderstandings are too frequent and consequences often fatal. One issue of major importance must be to en-

22 See Acronyms and other explanations.
23 IMO's Standard Marine Communication Phrases (SMCP) were adopted in November 2001. The standard is used to avoid misunderstanding and harmonise the vocabulary in shipping.

sure that terminal operators and ship's crew can make themselves understood using the English language. The problem lies in pronunciation of the English and correctly applying simple grammar to make sentences well understood. These observations are rarely confirmed in, for example, casualty and incident reports but commonly realised by people who actively work in the industry in various positions.

People inside and outside the sphere of shipping easily can get surprised on how bad the English sometimes is within areas of the industry where non educated workers are employed; onboard and ashore. The communication language within the shipping industry has, for a very long time, been chosen to be English. Britannia was the ruler of the oceans for a long time and during the time when other continents were explored. The indigenous were speaking a different language making it necessary to introduce one common language – English – in order to be on speaking terms.

In a mixed MET classroom the same situation is prevalent. Students mainly come from the national high school-level in their respective countries. If that school system has not been able to lift the English to a level accepted by the STCW-95 the MET institutions should put a serious effort into raising the level of spoken English[24]. One conclusion in the EU project CIIPMET contains a recommendation to the MET institutions in China (in particular) to use native-speaking English teachers instead of employing Chinese teachers to teach Chinese seafarers how to pronounce English words.

The level of crew English is conventionally only up to the standard required to manage crisis situations onboard ships. Neither is the English to such a level that crew of different nationalities can manage a decent conversation. The two remarks above are, according to existing casualty investigations, mostly applicable to ratings but to some extent also to officers. The level of English among the officers is not that bad but what is the use if the other part (the ratings) onboard cannot communicate back or understand. Again, the author in Paper V elaborates on this insufficiency that can alienate crew and therefore is a safety risk.

24 STCW-95 requires an English knowledge-level to accommodate the IMO objectives. The level of English knowledge, that is vaguely specified, has been discussed in various international seminars and projects. Cole et al (2006) have made an effort to set necessary English requirements and define methods to assess the students to fulfil the IMO objectives.

2.2.1 Understanding the meaning of spoken sentences and words

It is generally recognised that often what is said is always not what is understood. One has to analyse language specifically when analysing the pragmatics of crosscultural communication and therefore referred to in this thesis.

Fairclough (2003, p. 10) believes that there are three analytically separable elements in processes of meaning-making: "the production of the text, the text itself, and the reception of the text". In the literature one can find a number of philosophies discussing the link between communication and culture. Fiske (2004) is one of those who have found an interest in the cultural link to communication.

Language is not an expression of subjectivity instead the language constituent (is a component of) subjectivity (Börjesson, 2003, p. 104, author's translation and bracket). Subjectivity though becomes a bit hidden in a number of, often socially, recognised codes and conducts. Codes are systems of meaning and can be expressed in a complicated combination of signs, conventions and rules.

The meaning of these codes is built on agreements between the users of the codes in a group of people having a similar culture. Fiske (2004) states that the view of our world is equally specific to our culture as the language we use. The types of codes we decide to use are dependent on existing social relations in a certain context. If a person is not accustomed to the codes, then the conversation would be difficult to understand because many of the codes or signals we use while talking are predictable or redundant. The use of codes makes a person a member of a certain culture. If new codes are introduced into an existing culture a mixture of codes will be the result; confusion. Until new codes are publicly accepted there is room for misunderstandings. The same happens if a person uses own cultural codes in another culture, hence lack of communication.

What is real is apparently independent of how people conceptualize the world. In order to include the human aspects of reality, which varies between cultures since different cultures have different conceptual systems, one has to study the use of metaphors because "… metaphor plays a very significant role in determining what is real for us" (Lakoff and Johnson, 2003, p. 146). From past experiences it is clear that a human being cannot effectively function in a certain

environment without being able to change it or being changed by it. This interaction with the environment will lead to an understanding of the world and this leads to an expressed meaning.

Beside the use of codes and metaphors, teaching in a multicultural classroom requires insight in the use of proverbs and other modes of expressions (Lundberg, 1991). This statement becomes important in understanding student's assumptions and presumptions[25].

To understand the research object/s in a wider perspective and include as many different environments as possible, even past environment contents, a better understanding of a person's world view could be achieved. For further elaboration on meaning in a specific environment see discussions with reference to theories by Bronfenbrenner, in chapter 7.3.3. His theory entails the need to follow a person in more than one environment to understand views and meanings and furthermore to capture truth. Truth in the meaning of "… a discover of a deeper meaning than something apparent evident" (Alvesson and Sköldberg, 1994, p. 35, author's translation).

In crosscultural communication practice has important influences both on meaning and truth. This could mean that when you ask someone a question you normally require an answer. Or as expressed by Tannen (1984, p. 190, author's italic) "… questions are regarded as too powerful to use, because they *demand* a response". In both Paper I and Paper IV the contact with the students is through a relaxed conversation rather than straight questioning. This is perhaps an observation that should be considered by teachers in the classroom. Generally, and in certain cultures, it is seen as necessary for the teacher to ask questions in order to make students learn. Perhaps a relaxed conversation, or discussion, would be a more rewarding teaching method?

2.2.2 Behaviour and its impact on understanding

As a complement to verbal communication people use signs/gestures and dress codes etc. Gestures are equally important as words in understanding a transmitted message. Some cultures value these signs very much and without the signs communication can be very difficult to understand unless you are native or have very good insights into this non-verbal communication behaviour. An additional difficulty

25 Presumption: with the meaning of assumptions not certain to be truth.

is that social relations in a context govern the use of these codes of communication. At WMU the social denominator is wide. Students come from different family status. Some are pure academics and obtain their income mainly through pen and paper (claims executives, marketing managers, personnel managers, teachers, lawyers etc.). Other students are genuinely practical (operations managers in ports, ship surveyors, cargo surveyors, seafarers etc.). Within the same culture students also have different social status wherein the codes of communication differ. During the conversations with other students than the female student referred to in Paper IV, the answer was generally a no on the question if the teachers adapt their teaching to different cognitive styles. Bearing in mind that there are quite a number of sociological parameters that have an input on the style of learning, how can a teacher possibly teach to satisfy the many variations of learning that exist in a culturally mixed classroom?

During the conversations the interviewer looks and observes the interviewee. The interpretation of what has been said is naturally "coloured" by gestures given during the conversation. For an outsider this can be difficult to follow because different languages and cultures have different interpretations of the same gestures. During the conversations this might be an interviewer ambiguity meeting different cultures and languages during one and the same day. If not mastered well the body language could lead to misunderstandings when interpreting the conversations in Paper I and Paper IV. Obviously, teachers in multicultural classrooms must adhere to and be observant of such phenomena. This statement the author can do after extrapolating from other contexts like from the accidents talked about in chapter 1.3. In Paper III this impact on understanding a conversation is discussed and must be enhanced and emphasised in multicultural awareness courses to teachers. Naturally, the issue of body language therefore must be an important ingredient in a model course on cultural awareness.

Lundberg (1991) stresses that empathy is a very important factor when establishing mutual good behaviour, between people representing different cultures. When showing empathy communication becomes progressive. At WMU the students are often ready to help each other though sometimes at a reserved distance. You don't ask just anyone for help. Normally, first you contact somebody speaking the same language.

3 THE CHALLENGE OF MULTICULTURALISM

In the same way as people can be bilingual they can also be bicultural. Bilingualism and bi-culturalism (the two human bi's) easily can make the work of a teacher a real challenge. To give a firm rule on how the teacher, or anyone, can handle the two bi's is impossible. It is impossible because too many variables are at stake! Most probably, a certain element of a teacher's trial and error will always be there. In this thesis, it is discussed that, at least, it is possible to minimise such problems in order to have smoother and less controversial sessions in class. Many years on the rostrum have made a few teachers skilful in handling this mixed challenge of languages and cultures. Therefore, it is important to benchmark and learn from others having similar challenges.

3.1 Mono- versus multicultural student bodies

In general, we wish to be able to have an output from an institutional multicultural system that does not differ from the monocultural system, as practised in the Western/European world. Apparently, there are constraints in making this possible. Why is that so? Why does it not come natural to have a system that does not aim to stress functionalism, profit and individualism but as Tesfahuney (1999) notes: a focus on egalité, justice and universalism, in its genuine meaning, with a strong impact on wisdom and mutual recognition? To get clarification on this problem a short résumé is needed to tell where we are and what we have in a western education system; a system often declared to be the leading system of education.

One could question if it is or even should be so. Reading Roald's Tarbiya one cannot avoid being impressed on the methods of teaching used by the mullahs in the mosque.

According to Tesfahuney (ibid., author's translation) a monocultural education is white, male dominated and Western. In other words it is Eurocentric and excluding. This education system with its pedagogic, teaching ideal, norms for examination, qualitative substance, teaching material etc. is founded on ideas formed during the Age of Enlightenment. A period in history founded in "sexist, racial and elitist surroundings and also its non-universal view on life" (ibid., p. 12). JanMohamed, ranked to be among the most significant postcolonial scholars, has written that during this epoch the method of organising knowledge and one's world was done by different and exchangeable dichotomies: ego/others, subject/object, rational/sensual, intelligence/feelings, white/black, good/evil, civilisation/barbaric, upstairs/downstairs etc. By arranging life like this everything is where it should be and there is a place for everything. Von Linné's sexual system of the flora is an example of such a systematisation of life. The prime ideals of the Age of Enlightenment, universalism and humanism, were found to be totally different. Europe was made the centre for imagination, creativity and discovery contrary to Africa, America and Asia that were seen as synonymous with lack of common sense, innovation and abstract thinking. Europe saw itself as having a mission to civilise the rest of the world. When Hume talked about civilisation it was a civilisation pivoting on European civilisation. According to Tesfahuney, the foundation of western education is based on and influenced by a 'black-out' educational philosophy. To a certain extent, in some places, it still is.

Racism had its roots during the days of the Age of Enlightenment when the Roman Catholic Church in the West became a leading initiator. With the cross and the sword in each hand they impelled the indigenous peoples to pursue what was spoken from the pulpit.

After Livingstone's explorations the characteristics of races became a distinct rooted reality in western thinking. Famous men like Kant, Hegel, Hume and von Linné all wrote racial texts. In our time the racial epic has been modified to be an issue of cultures and nations. Tesfahuney and others identify the culturing of racism: *culture racism*.

This development and history is nothing new in world history. The Chinese once thought they were number one, *de i*[26]. After years of strong leadership came a standstill when the rulers lived on old victories and the enemy came and their victory was an easy task. In China communism entered the political arena and there was no real time to surrender. The nation kept its hegemony and looked down on those not believing in communism. The Greeks had a similar history; when they started to live on a glorious past history the Romans came. A comparable historical development happened to the Romans, the Incas and indeed with the Jews, the chosen people.

With the success of a state follows a mixture of the indigenous with other people moving in and looking for part of the profits. Sometimes the successful state wishes foreigners to come to help keep up the turning of the wheels. This is where many shipping nations are today. A difference to the past is perhaps the amalgamation with the non-natives. Today's "forced" efforts to mix people coming from different cultures, and mixing in general, integration, is perhaps doomed to be a mistake. How otherwise can it be explained that some shipowners, (JO Tankers, Paper V, p. 28) decide to avoid diversity and return to a homogenous crew complement? Perhaps, a cultural mixture can survive temporarily if decided not to be a static state. One example on temporality is the world of education where students come and go and the turnaround time is short. Research is needed on this problem.

Evidently, there is and has to be a state of affairs of them and us. Even if so, could it be reasonable to speculate about this label multiculturalism? In education, perhaps, one has to have a faculty policy on the system and run the programme accordingly? Perhaps, rules for a common learning environment can be constructed. If this can be passed on from generation to generation, a stabilised norm could be founded. The educational system then would become the carrier and can emphasise the symbols that are associated with the common system, (see further in chapters 3.2 and 9.1.5).

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26 *de i* is Chinese and means number one.

Kant pointed out that it is by excluding and suppressing alternative ways of obtaining knowledge about the world, by characterising them as "non-scientific", that the old system keeps its hegemony. Instead of emphasising we/them, subject/object, culture/nature, modern/primitive etc. education should qualitatively underline what is common and derive its philosophy from similarities, links, influences and reciprocity between people and cultures instead of separating and creating/identifying differences. During the days before Kant everything non-scientific was either trusted or valid. "With Kant, the modern age is inaugurated, says Habermas" (Flyvberg, 2001, p. 89). Tesfahuney emphasises that a modern age is needed where profit should not be the goal of education. A real multicultural education should not be elitist nor divisive but open for different perspectives. With this in mind the opportunities with diversity will perhaps be recognised. History can tell about the conditions when practising the opposite. It works, but the methods of Caligula, segregation etc. certainly clashes with modern ideals of cooperation and integration.

Lahdenperä (1997, p. 7) has expressed a more modern definition of a multicultural person: "… both one (or several) indigenous culture/s and one contextual culture". The contextual culture is the "new" culture that a person has attained in a social context through communication and interaction with different persons.

On the other hand, there are those who believe that "real" individual and social harmony is dependent upon the fact that every individual, on earth, has to realise that they are carriers of their own culture that cannot be rubbed out or changed; it is firmly rooted. Because of this "all humans carry a fear of foreigners" (Ljungberg, 2005, p. 185, author's translation). Humans, by nature, are believed to be xenophobic; *Homo xenophobicus*. With this belief it becomes understandable that some shipowners realise that a crew works better if it has a homogeneous composition as discussed and exemplified in Paper V. It is a sad development. More research is needed to verify this statement. The industry should be given adequate information and facts rather than have expensive trial and errors that expose lives, ships, cargo and environment to risks. Perhaps, a different approach to conduct research can give the industry a sustainable answer to the pros and cons of diversity in shipping and in the classroom.

3.2 Institution policy on teaching

Malik, a broadcaster, lecturer and the author of *Man, Beast and Zombie*, argues that "there is a dangerous ambiguity at the heart of multicultural thinking because of the emphasis on DIFFERENCE" (Bourne, 1998, p.58). The difference gives the racists the main argument for their existence. "By emphasising differences rather than equality, anti-racists are rooting their arguments in the same philosophies as gave rise to racial thinking itself" (ibid., p. 58). Malik also warns us that there is a risk that in multicultural work we often overestimate the homogeneity and autonomy of different ethnic groups at the same time underestimating the extent to which groups claim and feel the same in creating a common cultural framework. Ethnic groups and cultures are not static neither monolithic but "fluid" (ibid., p. 59). It would not be wrong to say that often it is a day-to-day affair collectively generated.

In a multicultural classroom the students would adapt to the "system" that prevails in the host country. Obviously, in the classroom it is not self-evident how to handle many cultural differences at the same time. Luckily, by nature the human being is very flexible. If this is correct, all identities should be hybrid and this hybridism should be the norm and a matter of fact. Bourne quotes Hall (ibid., p. 59):

> Everywhere, cultural identities are emerging which are not fixed, but poised, in transition between different positions; which draw on different cultural traditions at the same time; and which are the product of those complicated cross-overs and cultural mixed which are increasingly common in the globalised world.

Learning is best when the students in advance know and follow a published learning and teaching policy of the institution where they are going to study. It will not be better if the students try to follow the learning policy of a specific country or society. From this statement it follows that schools, universities and MET institutions have to promulgate their policy on pedagogy (predominant teaching style) in order for enrolled students to know what is expected from them. It should not be an ad hoc apparition or a student trial and error experience.

3.3 Previous research on multicultural classes

It has not been possible to find any research study on teachers' and students' challenges in a culturally mixed *maritime* classroom; not in any classroom composition except simulator training. During a number of committee meetings the International Maritime Lecturers Association (IMLA) has discussed the mixed concept and its application onboard ships. It is only in the last decade that the use of mixed crew complements and culturally mixed classrooms has become a dilemma. Moreby (1981, p. 48) wrote on multicultural environments in the 1990s and his concern was focused on the impact onboard ships. He foresaw the industry pursuing the following in 2006: "… the new manning systems must reflect emerging social values", "… European nautical training will be based on advanced and very costly simulators while training in the tropical countries may continue to be given in traditional forms", "… all point to a fundamentally different way of manning ships", "… In free-flag ships, manned by people from tropical countries, the manning system will be much as it is today". This serves to show a view of seafarers, ship manning and maritime education from 25 years ago. The prediction is fairly close to the ways things are. A big difference is that tropical countries are also required to have high standards in international trade because of the requirements in STCW-95.

Taking note that there are no studies on a mixed maritime education classroom one can argue that a maritime multicultural classroom context is not significantly different to any other classroom where vocational training is conducted. Experience from non-maritime studies, with right, can be extrapolated to a maritime classroom. The difference between type of education and type of students might not be very big. One could also assume it is the opposite or at least a different milieu in the MET classroom. Did the seafarers take onboard a stereotyping to the better or to the worse for positive studying in a multicultural classroom?

Apparently, a situation has been reached, in educating aspiring seafarers (ratings and officers) with an economy of scale and increased globalisation of the industry, where the industry is not fully prepared. Moreby did not foresee this dilemma. Apparently, nobody has studied this phenomenon and its impact on MET. Many MET institutions have students of all ages and more and more have students with significantly different cultural beliefs, norms and practices.

4 LEARNING AND TEACHING

It is realised that before a student enrols in an institution of higher learning he/she should know what policy the institution has on teaching practice. In this way the student, in good time, can prepare for the pedagogy he/she will encounter. Naturally, it follows from such a declaration that the teachers working at the institution have to adapt to the policy in their contact with students. If every teacher teaches in the way he or she has been taught, perhaps, it can be too difficult for the students to take onboard.

This research concludes, similarly to the findings of Wu (2002, p. 390), who found that foreign students often are puzzled when encountering a teaching style they are not used to. She writes "… not only each nation, but individual institutions within the country, sometimes in the same town, might have a different ethos of learning and teaching, structure and participation, expectations, duties and obligations of pedagogy". If the situation at WMU was different to this, many students would adapt and the period of less encouraging results would be shorter. The student in Paper IV would then perhaps be more inclined to interrupt the lecturer when there were unclear conceptions and be more alert during group work activities. At the same time, one should bear in mind that the teaching would be very boring if there was no difference in approaches to teaching. This opinion is demonstrated in the excerpt[27] in chapter 9.1.3. Normally the students like to discuss and the classroom is filled with voices. Among the loud voices there are many silent students; too many.

27 Excerpt is an expression used instead of example and thereby underlining that the exposed conversation contains words and expressions that have not been subject to interpretation and are extracted from a great number of transcriptions.

Before enrolling, the students should be aware what is expected from them and the theories of learning they will be exposed to (see also chapters 4.3 and 7.5). Just to mention the extreme alternatives: 1) is the institution emphasising discussions, self studies, group work linked to common activities like field studies with an aim of fostering managerial decisions in cooperation? or 2) is the teaching structured as in many non-Western educational institutions where the teacher is lecturing and the students memorizing what has been said by the "guru" and where the power distance is great? Under the latter a student's self-orientation, in a specific area, is reduced to words from the rostrum. A crucial difference between the two systems, 1) and 2), is the power distance between students and teachers and between students.

Hofstede (1997) has presented the concept of power distance. His conclusions are based on studies of personnel working worldwide for IBM (*International Business Machines*). Power distance is further discussed in paragraph 4.3. A relevant question is whether the Hofstede conclusions also are related to seafarers.

4.1 Differences and similarities

Globally, the shipping industry is considered to be a workplace for many nationalities. This statement is correct except for countries still having a strong labour union demanding that the national fleet should be manned (at least the Captain) with nationals, with people registered in the same country as the ship's flag. Within the EU soon there will be an agreement that any EU Captain should be able to sign on a ship with any EU flag provided the Captain manages the ship's working language. An exception might be made for passenger ships where it is crucial for the Master to manage the command language of the majority of the passengers, especially in crisis situations. The EU marine environment commission wishes to abolish all demands on nationality for officers in national merchant ships. This would be a command that will raise feelings (Nilsson, 2006). In chapter 5.4 this issue is further discussed.

In Europe the seafarer has become an alien species (an expression by Lord Kinnock, the EU Shipping Minister 1995-2004). For many young Europeans there are many land-based work possibilities more attractive than the shipping cluster. According to an article from

SIRC, the profile of EU seafarers is not encouraging. EU nationals represent 15 percent of the world's total fleet (Wu and Veiga, 2004). The SIRC study concludes that 62 percent of European shipowners use the flag of EU member states. With the expansion of the EU and with countries such as Poland, Ukraine and the Baltic states perhaps these nationals will constitute a supply region of European seafarers on EU-registered ships. The cultural challenge comes with the fact that "Of all seafarers sailing in the EU fleet, 28 percent are EU nationals and 72 percent non-EU" (ibid., p. 25). From these figures it follows that three quarters of the total crew on EU ships need knowledge in cultural awareness and in some cases a better knowledge of the English language. About one quarter of the total crew on EU ships mainly serve as officers that certainly need cultural awareness training to be able to give good management to the crew from non-EU countries (and also to seafarers within the EU). This awareness training should be delivered at MET institutions and by experienced MET teachers. Contrary to the above scenario is the alternative that when governments, particularly in EU countries and some Asian countries, start to make it economically feasible for their shipowners to sign on homebrewed officers and ratings. If not, urgently the MET must offer educational programmes in cultural awareness.

To be culturally competent requires cultural knowledge. With such knowledge follows empowerment. Not only teachers should have this knowledge but also the students, aspiring seafarers, should learn to know other cultures. "They should learn to see their own culture as part of the cultural whole … accepting diversity, tolerance …" (Pitkänen, 1998, p. 43). After many years of history people in different parts of the world have built what they realise to be their best way of living and surviving. Therefore, value- and norm systems have become differentiated. At the same time it should be realised that there are no universal standards for values and norms. It must also be considered a serious impossibility for an individual to categorise him/herself as realist, on this issue, by saying that all behaviour and opinions are accepted because then that person should also accept intolerance and this is perhaps not the idea behind practising multicultural understanding. Humans should be pluralistic in mind, meaning that we accept cultural diversity. But as outlined in Paper V the shipping industry appears to hesitate on a mixed crew comple-

ment. A growing view is that a homogenous cohesive crew will have fewer problems. Apparently the shipping world is not mature enough to challenge a cultural mixture. Because of the constructed human respect for the unknown and an additional blessed successfactor, the inherited human sense for curiosity, the human being can be educated and receive cultural awareness, see further in chapter 4.1.2.

4.1.1 Reciprocal thinking and stereotyping

Through education and culture most people have achieved a stereotypic image. People also absorb a prejudiced attitude towards other people in other countries than their own through movies, newspapers, gossips, advertisements and other media. These ethnocentric images are generally difficult to change. Lahdenperä (1995) writes that from an impact alone of attitudes and values it is impossible to make someone free from prejudice. The reason for this difficulty is that these attitudes are deeply rooted in our feelings, sympathies and dislikes. An impact is needed on several levels of a person's personality i.e. "…in our apprehension of self, behaviour, roles, attitudes and values. To achieve a free-of-prejudice goal a longer time process is needed" (ibid., p. 68, author's translation). As pointed out in Paper IV, the female student still keeps her culture but the Swedish environment has made her somewhat acclimatised to a western behaviour as shown by the way she interrupts an elder or senior. This is something contrary to her indigenous behaviour. A short field trip to another culture will not be long enough to obtain a genuine change but it can give the individual an opportunity of developing reciprocal thinking (an ability to enter into the spirit of something or being able to treat someone with mutual respect). During MET lecture hours this human aptitude could be passed on to students. The facility of reciprocity is needed in order to be able to make own judgements and have an opinion of culturally groupings. A prerequisite for a reciprocal mind is to have experienced a positive encounter of the other and be able to see similarities between ones own and another's culture. In order to act in a reciprocal way a person needs to understand another person's situation, see also Paper I. According to Lahdenperä it means to understand both with a cognitive and an affective approach and with a certain level of spirit and effort; mutual treatment and respect. Reciprocal thinking fosters students to think critically and not to take anything for granted.

In order to prevent stereotyping Sahlin (in ibid. pp. 69-70, author's translation) has listed eight points to bestow reciprocal thinking:

1. To live and work in a comfort environment where everybody dare express and discuss different opinions and problems
2. To meet [sic.] a positive contact with persons from a different ethnic group
3. Discover communalities and then accept differences
4. To see positive virtues/qualities in other individuals and groups
5. To experience attentiveness and acceptance from others
6. To be aware of ones own self; how to categorise and generalise
7. Get stimuli from other peoples roles and angles of approach
8. Increased knowledge of other countries and ethnic groups

When dealing with the issues summarised above, a pedagogic point should be to underline the impact of feelings and empathy and have issues such as content of knowledge and critical thinking come second. Lahdenperä also emphasises that in achieving reciprocal thinking both a life experience of the other is needed and cognitive explanations for situations experienced. Often, the latter can be passed on from persons who have a double culture competence. An advantage with such additional knowledge perhaps sounds paradoxical, but such a person also gains a perspective on his/her own culture and with this he/she is able to reflect and realize a deeper cultural insight. It is like the fish that does not realise its breathing capacity in water until it tries to take breaths in air. A visitor meeting people from other cultures on their playing field makes him or her better aware of self. One's own generalisations and prejudices will be verified. It is by being confronted by a reality not expected that awareness is nurtured.

Therefore, teachers ought to be careful to judge quickly and certainly not insensitively criticise a student's judgements, values, speculations and questions. Instead, it is recommended that teachers adopt an open attitude to speculations and reflections on different behaviours.

Normally, humour is a good remedy for handling complicated conflicts/situations like when students start to become antagonistic and the teacher can be subject to aggression. At WMU and also from both

Paper I and Paper IV any type of antagonism, so far, has been non-existent. Usually, the students are not present in large numbers from the same country albeit to group is a very common phenomenon. Horck (2001) concluded that when students number more than five persons from the same country, with the same language, by means of the same culture etc. group tendencies, without doubt, are established as sure as faith.

Semiotic interpretations usually focus on literature; we are engaged in them all the time. "You have to know the semiotics of the boss's clothes: a dark tie means he is in a bad mood, a light coloured tie means he is happy and an open collar means he is relaxed enough to discuss a raise with you" (Herlitz 1999, p. 100). These types of interpretations vary with different cultures. One can easily realise that misunderstandings are at hand unless we have learnt to observe habits like in the above example. To sneeze in a green handkerchief can be very insulting to a Libyan. Green is the colour of the Libyan flag and symbolises good in Islam. There are a number of books discussing such issues. At least for the Swedes, the book written by Herlitz is used by embassy staff, business managers, UN soldiers etc. before taking up an assignment abroad. It is suggested in Paper V that also seafarers gain cultural awareness before signing on instead of learning the hard way and create a hazard on the ship. This education should be included as a mandatory component in the MET programme and not be an additional course that the shipowners have to pay for in order to make the crew alert and aware on this issue. Generally it should be left to flag administrations and governments, pro shipping governments, to solve education and crewing problems, not the shipping industry.

4.1.2 Cultural awareness learning - blending

"The aim of multicultural education is to confront with a critical mind, cultural habits and values, to be free from dependencies that restrict the human growth and intercultural dialogue where sensibleness and validity of different life forms are being judged and examined" (Pitkänen, 1998, p. 45). The main point with this education, like in any education, is to change the meaning perspective of the student. Thus, to develop the capability of critical thinking is an important part of cultural competence when practised in a cultur-

ally pluralistic society. In this process a re-evaluation of ones own culture emerges. People have a need and right to judge values based on knowledge obtained through their own sources. When our goals are not reached, as we planned, we can either change the goal itself or change the external conditions that are obstacle to reaching our objectives. At the same time we have to adjust our own aspirations, our own goals, to match or partly match the interests of people around us. Apparently, in the western hemisphere there is a long ethical tradition of coping with conflict of interests. In a pluralistic society the situation is different. In many situations e.g. Muslims and Christians have significantly different views, even on what could be described as elementary issues. Though, consideration and silence must not be understood as the same as compliance.

Apparently, there are many constraints in facilitating learning about cultures. The obstacles are many and crucial to overcome. If culture learning is not included in the curricula at the MET institutions and professionally taught, it is a common fact that the general education can be a mechanism of social exclusion. "The main reason for multicultural learning is to obtain a profound insight into oneself by obtaining a certain amount of ability to see from others and other cultural perspectives" (Banks, in Ljungberg, 2005, p. 110, author's translation); an understanding of own identity. The pedagogy, in other words, becomes the way we learn to think about ourselves in relation to the world. The first thing that a person should do who feels outmanoeuvred because of racial arguments is to carry out a good self study on her/his own culture. In the conclusion on cultural awareness education, it should be emphasised that there is no absolute correct way to live and with this follows room for tolerance, respect and understanding (Ljungberg, 2005).

Education in multiculturalism must be pluralistic rather than relativistic. Students would be better equipped to understand problem-solving results based on cultural practices and to give equally good solutions to the same problem. The road to the solution would be different but the result would still have equal value. From a student's egoistic viewpoint it becomes evident that his or her limits in thinking could be discovered/realised. The student's education has then become not only international but also transcultural.

In general, blending is a hazard because you do not know the constituent/composition of the new whole, resulting from its many parts. But in this situation as long as we know the various cultures that we have blended into our new way of thinking it can be nothing but beneficial. This is contrary to, for instance, blending different constituent known coals, from different sources in the world, being transported as "blended coal" – a very dangerous mixture because the constituent of the blend is often not known; a trade hazard. If the blend of the crew is not known there is also a hazard; a double-hazardous ship.

An employer in any work would like to have workers or employees that are creative, not creative in isolation but in groups. Life onboard a modern ship is typically a group work effort. To incorporate such competences as group work in the MET is therefore important. Von Wright (2000, p. 11, authors translation) found in her group seminars an important point as stated in her forward "… diversity and multitudinous attendance are a prerequisite to change and creativeness". From a diversified assorted group (culturally and gender mixed) it is expected to grow new ideas and challenges to the benefit of the whole that the members are working for.

4.2 Cognitive styles; a student's challenge

The approach that students use to learn varies depending from which country and culture the student comes. Religion, social system, family and social background etc. have an impact on the learning of concepts as well.

Two major, diametrically different learning systems can be identified: 1) students, who wish to be told, by the teacher, what is fact and what is correct. The teacher is seen as a "guru". The student needs a precise answer to any fact, query or problem solution. This statement becomes very apparent in Paper IV. The students do their best to memorize what the teacher has told. The opposite is 2) students who wish to discuss and do not hesitate to question openly what the teacher is saying. Students may query from where the teacher has obtained facts passed on to the addressees. The teacher is not believed unquestionably. The teacher is not a "guru". Discussions often lead the students to good and consensus on a given problem. This is demonstrated in Paper I though it is found that female students tend

to take a back seat during the major part of a discussion. At the end of the discussion session the ladies normally voice their opinion and put the rest of the team members back on an upright keel.

When a teacher practises the second system it makes some students feel a bit non-participatory in class; particularly, if the students are used to be taught by a "guru". Students who are used to primarily listening become disturbed or lose the logical sequence of the lecture if somebody interrupts the teacher. This, in particular, is the case if the questions are not really focused on the subject or when it is apparent that later in the lecture the teacher will bring up the issue that one student wishes to discuss in advance. Sometimes it happens that the students do not understand the teacher because of teacher's bad English; bad in the sense that the teacher's pronunciation, articulation or dialect is unfamiliar. Seldom or never, is a WMU teacher interrupted because of a student not understanding the spoken words from a teacher.

The issue of student assessment becomes problematic when the class hours are focused on discussions and the students are silent in class. One student conveys in Paper IV that she feels negatively judged because of her silence in class. The silence emanates from shyness that mainly is culturally conditioned. As discussed in Paper I, part of a solution to make everybody participate more actively in discussions requires the teacher to carefully consider the composition of the groups. Group composition should involve a consideration of the number of students, their age and gender. Group compositions should also alter because this will give the students a chance to learn to know each other. Groupwork provides disciplined, organised and structured conditions.

The reason for students' reluctance to group, after class, could be explained by a heavy academic workload, shyness or difficulties to realise the multitude of positive aspects that come with human diversity. After class, many go to their rooms and then it is "me and my four walls" as one WMU student expressed her situation (Horck, 2002).

In situations that appear similar, an individual as well as people in a group act very much in their own way. It can be assumed that the teacher conducts the teaching in his or her personal way and consequently the students try to catch knowledge by following the

teacher's logic in presenting. A good student should self-critically ask himself/herself how do I receive new information and later he/she should be able to verify what has been understood with what has been taught and hopefully receive good marks. In order to achieve this, together with the teacher, the content, working conditions and the physical environment have to be agreed upon or defined by students and teacher. Logically, after settling these issues it follows that the question of finding the method of teaching (pedagogy); a convenient pedagogic method that the student is happy with. Here comes the obstacle. The question of pedagogy cannot be treated as a question of methods independent of the relation to results. The problem is that "… there is no fixed relation between such prefabricated general methods and result" (Svensson, 2004, p. 15, author's translation). Svensson puts in writing that method is dependent on context. Every individual has his own relation to his or her world and this also implies with the learning environment. It is the learner's activity in relation to the learning environment that makes the result. Therefore, one can draw the conclusion that there is no direct link between method and result. In addition, different methods have different meanings for different students. Logically, the meanings differ more if students come from different cultures than the western culture from where most teachers teaching in Europe and also at WMU, including visiting professors, originate. At the beginning of 2006 the following countries were represented in the permanent WMU faculty: China, Denmark, England, France, Germany, India, Iran, Japan, Philippines, Sweden, USA and Åland. Imagine the constraints with the many learners' cultures (culturally inherited cognitive styles) and the many teachers (culturally labelled pedagogy methods).

A student's academic result is the result of an interaction between student and teacher, where the student has to take advantage of the study environment in order to get the good marks. As can be noticed in both Paper I and Paper IV, non-direct teaching activities in class can sometimes be disturbing to certain students. This is a culture-oriented phenomenon. If class activities were assessed perhaps more students would be active during coursework etc. If students took each other's different cognitive styles into consideration, when being active in class, probably more students would participate and not take a back seat. In order to achieve better class participation the

students need lectures in cultural awareness. After this lectures the students that otherwise feel that they are not fairly assessed probably will gain confidence. Eventual positive effects of diversity will become evident.

Beside the discussion on classroom activities, group work etc. and the assessment of such learning activities is the problematic of students answering exam questions. For many students it becomes a struggle to find the right vocabulary accepted in higher studies. Linked to such challenges and efforts falls back on the recruiting of students to higher studies. The higher the entry levels of written and spoken English and computer literacy the less of such dilemmas for students and teachers. Of course, a different, but still a relevant issue to above is how much such higher skills can contribute to safer shipping, cleaner oceans and secure shipping.

4.3 Pedagogy; a teacher's challenge

Learning and teaching, two components in search of knowledge, are activities linked to culture in the same way as many other activities in a person's social world. An interesting challenge appears when the teacher has to decide what pedagogic system/s should be practised in the classroom where students have different cultures and come from several ethnic areas of the world; a mixed classroom.

Obviously, it appears not to be practical for the teacher to use his overriding culture of pedagogy, especially not if the educational institution is staffed with teachers from different parts of the world. At WMU about 35 percent of the permanent teaching staff is non-Western. It is neither suitable to practise the host country's pedagogic system (if it is logical to define teaching like this) nor any of the students' teaching systems. It is bound to be confusing both to students and teachers. Normally, and for the big majority of WMU students, the standard academic programme is 17 months. Perhaps, this length is too short for a student to be able to adapt to a mixture of teaching styles that he/she is not used to.

"It is possible to ascertain that there are relatively big differences between the student approaches to knowledge and learning when they start the course" Jakobsson (2006, p. 400). This statement is also relevant for WMU students. Jakobsson (ibid.) finds that "… students have or are in the process of developing a collaborate com-

petence … they are able to see the advantages in using dialogues as an important learning source". It must be the teacher's role to make it possible for students to be aware of the fantastic advantages of collaboration. The students at WMU are not competing which makes it easier for them to adapt to collaborative learning methods. Partly, a teacher's effort must be to train the students to develop their epistemological understanding; how they really learn and understand.

If an optimal learning curve is to be achieved, it is the teacher's skill to blend different teaching systems to suit different cognitive styles. To increase the varieties of imparting information, classroom activities become important. At WMU this is sometimes practised but according to the students in Paper I classroom performance is not considered in the assessment of the students. To assess classroom activities would increase student's motivation to actively contribute to discussions. Students like to discuss and present and listen to colleague's ideas and experiences. A grade structure solemnly based on written exams and assignments excludes the debate hungry students better skilled in talking than in writing. This is a problem in the MET because as stated in Paper III, the possibilities are high that many non-professional educators, for instance in the EU, that do not yet have pedagogic training and for sure have no, or very little, culture awareness knowledge[28]. The author further argues that port state controllers and flag state inspectors and vetting inspectors should have an understanding of cultural awareness because a survey in general should not only be to criticise and find faults but to bring up and explain rules and regulations in a pedagogic way.

There are no general and formulated set of rules or recommendations on how to teach to get a good return on a teacher's efforts or efforts together with the student. Part of success is that teachers should not regard the students as the other in relation to their own culture. Bourne (1998, p. 59) writes that "… we need to examine critically the social construction of national group identity ...". It would mean that there is a lot more research to do in order to achieve full understanding of how to tackle these challenges.

28 During 2006, the Swedish newspaper *Sydsvenska Dagbladet* have published several articles making the readers aware of the high number of teachers in the compulsory school that do not have passed the teachers' college.

It has been noted that diversity and heterogeneity of people, within the same country, is usually quickly perceived. Bourne concludes "… the myth of an essential national character acts as a device to exclude newer cultural groupings…" (ibid.). If it works like this on a national scale perhaps the classroom culture develops in the same way?

How to achieve maximum learning has been studied for different age groups considering a number of factors. Factors having a major impact have been identified. Factors that appear to be universal are the following as identified by Scheerens (in Bourne, 1998, p. 60): "… order, security, structured teaching and high expectations". The differences in outcome have been explained by diverse groupings of students. What should be looked into is if a better explanation for performance could be found, in e.g., differences in ethnicity, gender, social class etc. Quite possibly it will not be an easy task to find the differences but learning and teaching institutions should, in their goals and objectives, still mirror their teaching efforts in order for students, as discussed in Paper I, not to be puzzled by the teaching practices in the beginning of their studies.

MET teachers, today and probably even more in the future, must learn to be comfortable with diversity. This means that teachers should not be afraid of applying a non-formal pedagogy especially when addressing adult students and students from a blend of ethnic backgrounds. Einstein once said that when you are exposed to challenges then imagination is more important than knowledge. Taking this sentence further it would mean that any human being, in any context, learns well if the teacher varies the teaching style. The reader might remember Svensson's statement on method and content and the student's answer on seating preferences (a context parameter) in chapter 4.2. Svensson's statement is correct in the western world but perhaps not in other cultures. If the teacher, in front of the students, admits that he does not have an answer to a student's question but replies that he will answer at the next contact with the class his behaviour will challenge his authority as a teacher. Perhaps, his entire existence as a human being is put at risk; he will lose face.

There are multicultural institutions around the world that have an ethnic mixture of students and teachers and most probably they will increase in number. The institutions are labelled multicultural

because the students and/or the teachers are from different cultures. The "challenge" is that the teachers teaching in these institutions principally teach according to the system they are used to in their home countries. Logically, if an institution is multicultural then the pedagogic content should be set bearing this in mind. An institution that has adapted to this situation i.e. adapted assessment policies, teaching material, pedagogy etc. in an effort to reflect its multiculturalism is liable to register a better learning average. The fact is that teaching in multicultural settings, in most institutions, still has not been developed to perfection. The concept is still fairly new, at least in MET. At the turn of the century and from a multicultural perspective, Bourne (1998) and other scholars believe that teaching and learning knowledge still is in its infancy.

Teachers, active in multicultural institutions, usually have to learn how to recognise the challenges with a mixed student body the hard way and after many years on the rostrum. Naturally, an interesting bank of knowledge, an unconscious teacher competence, would be of value to pass on to aspiring teachers and to active teachers at multicultural institutions.

A recent study in Sweden concludes that cultural awareness and cultural sensitivity need to be enhanced in schools where there is a cultural mix. In order to educate in a culturally mixed classroom, the report concludes that there is a demand for the following issues to be taken into consideration (Drakenberg et al., 2006):

a) Smaller class sizes
b) Effective program on reading instruction in different languages
c) Clearly and explicitly articulated program goals
d) Fully qualified teachers in every class room
e) Knowledgeable and solid leadership and management
f) Positive relations between persons involved
g) Adequate instruction class rooms
h) Valid and reliable assessment instruments

These issues are found to be the fact from classes with children but are recognized to be valid independent the students' age[29] and therefore relevant also for grownups, like the WMU student body.

29 Also to use Bronfenbrenner's theories on grownups has been verified by Drakenberg (personal communication, September 2006.

Above eight issues have not really been looked into in any of the papers included in this thesis. However, the first and last items (a and h) have been touched upon. It is evident that some classes are too big (more than 16 students) and assessment procedures are discussed both in Paper I and in Paper IV. At WMU there have been classes of up to 30 students with almost as many nationalities. The course on General Maritime Administration 1986 (GMA-96) had 31 students from 20 nationalities (Algeria, Angola, Argentina, Barbados, China, Comoros, Cuba, Ethiopia, Guatemala, Indonesia, Jordan, Mauritius, Philippines, Rep. of Korea, Saudi Arabia, Somalia, Sri Lanka, Thailand, Togo and Trinidad and Tobago). According to this study and the example, that is extreme but not unique, it shows that there sometimes can be too many students in the same class. When field studies are part of the curricula too many students in a class makes the outcome less positive. The reason being that all participants cannot see and hear what the host presenters are demonstrating and saying[30]. This becomes even more important when students are visiting ships, ports, maritime manufacturers etc. bearing in mind the safety aspects. Another negative factor with large class sizes is that it hampers communicative teaching.

Knowledge of cultural conceptions and limitations cannot be obtained in a strictly cognitive approach. Papers I-V and this thesis are an awakening of the need for teachers to obtain knowledge of cultural awareness and in its extension it will have a positive role in both ship safety and social welfare of the crew. The entire global maritime community needs this awakening.

Hofstede (1997) studied pedagogic differences between countries with small and large power distance. The characteristics of *small power distance* are, e.g., that teachers expect initiatives from students in class and students treat teachers as equals. *Large power distance* means that teachers are expected to take all initiatives; teachers are "gurus" who transfer personal wisdom and students treat teachers with high respect. Hofstede also divides people coming from countries with weak and strong uncertainty avoidance. The meaning of weak uncertainty avoidance is that a teacher may say, "I don't know", and students are comfortable with open-ended learning situations and concerned with good discussions. *Strong uncer-*

30 An interesting observation is that seldom students leave room for shorter students and female students to have access to something demonstrated; perhaps a sign of less collegiality and a strong ego interest.

tainty avoidance means that the teacher is supposed to have all the answers and students are comfortable with structured learning situations and very concerned to acquire correct answers. The above conditions are exemplified both in Paper I and in Paper IV. The Asian student in Paper IV clearly remarks that she is more comfortable with the latter relation between student and teacher i.e. proper distance. Interestingly, she shows the opposite during the study conversation with the interviewer i.e. she shows less power distance.

The Swedish Research Council (Vetenskapsrådet) has funded a research project "Learning to reason in the context of socio-scientific problems" (Mäkitalo et al., 2006, p. 3) where it is written:

> "… classroom activities and learning tasks appear to have changed rather dramatically in recent decades in many parts of the world. This does not imply that learning and traditional question and answer patterns have disappeared, but rather that such practices are challenged by other modes of communicating and learning, where the demands on students are different. Today, pupils … are engaged in groupwork and various forms of problem based learning. Learning tasks in such settings are often more open-ended and presuppose rather complex skills on the parts of pupils of being able to search for, select, structure, and evaluate information and arguments of different kinds".

With this follows the students' ability to understand and identify other people's way of speaking from a multiple perspective, to critically accept messages, enable concepts to make sense and to be able to argue on these viewpoints. If there is any gap in the understanding, the participants themselves have to attend to such bridging problems. To manage successful bridging, skills are needed to bring forward clarifications, explanations, justifications etc. in order to make sense in understanding. Shyness, from the students' point of view, is a behaviour that has to be placed in the very back row. Teachers need to be sensitive to gaps in talk and have an insight that sentences uttered can have different conceptions dependent on students' history and culture. From a communication point of view, therefore, the teacher should not use explanations or sentences that are fractionally composed. In a group of mixed languages it is better

to be less complicated. Instead, the teacher should facilitate the students who require support and guidance in how to find knowledge within a collective study option. The teacher has become a facilitator of information. The students both in Paper I and Paper IV made remarks that teachers from English speaking countries have a tendency to use a vocabulary that the students not always feel comfortable with. This is something all teachers teaching in a multicultural environment like WMU should bear in mind; not to use rare words, local expressions, proverbs and complicated long sentences. A person that has received a *Foot in Mouth* award, perhaps, should not take up a job as teacher. A good example on a complicated sentence is illustrated below:

> ”Reports that say something hasn’t happened are interesting to me, because as we know, there are known unknowns; there things we know we know,” … ”We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns the ones we don’t know we don’t know”.
> (US Defense Secretary, Donald Rumsfeld’s curious statement at a press briefing, 2003) .

Teacher competence has been discussed in a number of research studies. One recent research study discusses the correlation between teacher competence, school attitudes and self-confidence and that these three factors are related to the efficiency of the students in handling their conflicts, school attitudes and self-confidence Malm (2005). “… teaching is an emotional practice because emotions are at the heart of teaching” concludes Hargreaves (in Malm, 2005, p. 408). Malm and Löfgren (2006, in print) write “… it was found that the emotional bond teachers had with their students was the central influence with regard to their choice of method, teaching context and practice”. The two reflections above signify that a teacher carries a big burden in the way he/she emotionally relates to the students. Whether this is the case also with non-Western students was not discussed in the papers included but presumably it is also relevant, perhaps with additional stringency.

With the above in mind, one can wonder how different pedagogies practically can be harmonised and be made to satisfy various multicultural settings that exist in the world? Do we need to harmonise; a buzzword today? Lahdenperä (1999) discusses this and is of the opinion that usually it has been shown that a student's need is to attend an ethnocentric pedagogy. It has been found, in non-MET class contexts, that teachers usually take their own cultural values for granted in the classroom. The consequence is apparent: the teacher's relation to other cultures than his/her own could easily lead him or her to discrimination. This is of course not acceptable neither for the teachers nor the students being subjected to such attitudes. Further research is needed and in particular in the field of MET.

Like many universities worldwide maritime institutions are failing to adequately support ethnic minority students. European MET, like many other professional courses in Europe, is very much based on Christian culture and history. This state of affairs is being discussed more and more in media and technical journals on education. To understand the tutoring in a foreign language constitutes an additional difficulty in catching the meaning of what the teacher is saying. With a different religious belief, between a student and his or her teacher, a supplementary constraint most probably will be introduced.

A summary of above could be formulated by a not teaching person like Johansson (1995, p. 12) who is a cook and writes: "Because of its complex nature intercultural education places special demands on teachers". Literature studies from academics interested in multicultural education like Bourne, Drakenberg, Lahdenperä, Tesfahuney, von Brömssen, and many others will give the same statement.

4.4 Complementary predicaments

Universities seldom give students access to cultural and religious societies and networks. It turns out to be the student's own initiative to find group similarities that he/she can identify with. Of course, this statement is not general, some institutions have tried to address the problem but progress is slow mainly because these issues are complex. Generally, students do not need someone to hold their hand but rather to have a support network that is not solely geared towards white middle class students. This was stated in a summary in a UK research study led by the *Institute of Employment Studies*

(Tysome, 2004). Of course, from a sociological point of view, for a student with social constraints in his or her world, an examination of knowledge could make a good result difficult to obtain. Many will manage but some will suffer and the academic assessment is not fair and will not reflect the possible and real knowledge of the suffering student. Various environments in the student's direct life and in the past can have negative effects on the person's well being as such. This is normal for any student but it becomes more an issue for a student not studying at home but in a different social context where everything is more or less new and different.

The *United World Colleges* (UWC) has a concept to establish their premises far from the hectic life of a big city. This policy shows a good insight in leading the students away from disturbing environments, odd behaviours from the indigenous and other unpleasant eventual confrontations. The students can concentrate on their studies and learn to survive in a cultural diversity among alike. Assessments will not become too much of a student's worry because of disturbances from activities outside the study environment.

5 MARITIME EDUCATION AND TRAINING (MET)

A country with a shipping profile and with a serious desire to have its own national fleet manned with nationals needs access to a training institution to educate according to international rules and regulations. This MET institution should be equipped with the latest technologies for students to familiarise themselves with. The shipowners should not take the risk of having an officer on watch who has to use the period to learn how to operate the equipment and be aware of and comprehend the equipment's accuracy. The latter is one of the most important issues for watch officers to be taught at the MET. Both old and new equipment and modern simulators are needed at the institute. As urged by Horck (1998a) and in Paper III, the equipment manufacturers should (and they will) be invited to participate in the education and this free of charge. Such a goodwill attitude among manufacturers would enhance safety at sea.

5.1 International policies on MET

With the revised STCW-78 Convention (STCW-95) a considerable added responsibility has to be taken by shipowners and the national Administration (the regulating authority). The Captain is still sovereign onboard but he/she needs support to take difficult decisions, sometimes unpopular with the owners because of commercial preferences. At the same time, a more global uniform requirement has been requested by the shipowners. The first action has been efforts to abolish common regulatory sentences like: … to the satisfaction of the Administration, … acceptable to the Administra-

tion, … as determined by the Administration, … at the discretion of the Administration etc. Such phrases make harmonisation difficult. Multiplicity in the implementation and variations in the control of IMO instruments lead to an uncontrollable disharmony in the education of seafarers. According to the author it is not an exaggeration that the STCW-78 Convention, previous to STCW-95, was a failure regarding international harmonisation of maritime education. The issue of harmonisation apparently has many facets.

5.2 The MET student today and in the future

Is there an indigenous MET student? If so, then the classification has drastically changed during the last hundred years. A student in 2006 has little in common with the maritime student of the 20th century and even less with a student from older days. In many countries, mainly developed counties, in the 21st century, the student is a relatively well educated person and from both genders. In European countries an entry qualification often is gymnasium level or similar (about twelve years in school). However, this is not the full truth for a worldwide cadre of MET students recruited to be seafarers. Seafarers from developing countries often have less pre-knowledge when enrolling into MET studies. In Sweden students normally have twelve years in school before entering MET studies. In some countries students enter after nine years in school. It happens that seafarers of the latter category are hired to work on ships owned by shipowners from developed countries. This is the reason for a new industry challenge partly being the reason for accidents encountered in the 21st century. Therefore, in order to avoid the risk of getting a substandard crew, modern shipowners consult worldwide manning agencies to man their ships. Shipowners can do this when the manning agency can show a quality assurance award and thereby a guarantee that the cadre of seafarers, that they offer, have the requested international minimum skills.

Probably, already early in the 21st century, the maritime student will have to have a greater and broader general knowledge than today (2006). If the manning agencies cannot find the people with the right qualifications shipping nations should be very concerned, and they are. One reason for requiring crews with a high education level is the many different sophisticated instruments placed on the

ship's bridge and in the ship's engine room to facilitate the operation and to increase safety. The high level of officers education is understandable bearing in mind the responsibility the ship's officer of the watch have – the life of human beings that cannot be valued and the value of the ship, its cargo and the environment that normally is very highly appreciated. Another reason for additional knowledge than stipulated in the STCW 95 is to give the individual a better start when he/she cannot be at sea anymore and perhaps has to look for work at e.g. a shipping company's office, port administration, shipping agency, chartering agency, cargo or ship broker, or at a MET institution.

5.3 Industry expectations on MET

What do the shipowners want from MET? Is it better that MET is taken care of by the industry itself as an alternative to Government? Two questions discussed and where opinions vary. At a few MET institutions significant subjects are delivered and supported by the industry itself. This classroom activity is done in order to give the students the latest of the art, Paper III. One can see teaching by the industry as egotistic because hopefully there will be less complaints on bad handling of their equipment if the manufacturers teach those who are going to use their equipment.

The EU research on harmonisation of European MET, a study by the acronym METHAR, concludes that many European shipowners would like to have officers onboard with broader knowledge than required through STCW-95. This is one reason why MET institutions, in many countries, not only European, give the students an academic degree after successful studies. This means the students have obtained relevant knowledge also in other subjects like mathematics, own language, foreign languages (preferably English), physics, chemistry etc. that are not required according to the STCW convention.

Traditionally, seafaring is one step in a person's life. Often, sooner or later, circumstances will take the seafarer to drop the anchor ashore. If the seafarer has something more in the rucksack than the bare knowledge of the STCW he or she will be more attractive on the labour market. Shipowners are interested in "over-qualified" officers because it is in their interest to have former good seafa-

rers in the company headquarters. There are other players in the industry that also need ex-seafarers e.g. shipping agents, ship sale and purchase brokers, cargo brokers, ship chartering brokers, operational managers in ports, claims handlers at insurance companies and Protection and Indemnity Clubs (P&I Clubs)[32], teachers at MET institutions etc. If these persons did not have an academic degree they would be less attractive in shore based offices in the shipping industry. Alternatively, after their sea career, they have to go back to academic studies to fulfil employment criteria for many shore jobs. The EU METNET project (a follow up of the METHAR project) also verifies that the majority of shipowners would like to have officers holding a broader knowledge.

Today a seafarer is a rather well educated person, either male or female, with rights to express opinions and take part in teamwork processes. It is very far from the tasks of an officer at the beginning of the 20th century when the Captain was next to God. In modern shipping, teamwork (BRM) is important and with that follows that the Captain has taken a less elevated position but legally still have the ultimate responsibility on what happens onboard. When teamwork is not functioning a strong leadership still is necessary. In the past the Captain was sovereign (and to a certain extent still is) and with no doubt showed a pride in knowing his ship and how to handle it. Officers and ratings did what they were told to do with-out questioning the order. Seafarers of the 21st century are aware of teamwork but perhaps teamwork not practised as implied by its definition. Crew composition is random. Selections are often such that the crewmembers do not know each other in advance. This is a practice against the quality criteria in the STCW. The ship's crew must be a team that can work well together. "They need to cooperate and understand each other. If work is to be carried out in a more multicultural environment both onboard and in the boardrooms, we need to have knowledge on cultural differences. … cultural differences are not a subject that is automatically understood by everybody" (Horck, 2001, p. 16).

32 Protection and indemnity insurance, commonly known as "P&I", is marine insurance against third party liabilities and expenses arising from owning ships or operating ships as principals. It is distinct from other forms of marine insurance purchased by shipowners such as hull insurance and war risk insurance. Retrieved on 11 September, 2006 from http://en.wikipedia.org/wiki/P%26I_insurance.

The typical background and character of a person who chose a career in the merchant marine has naturally changed from then to now. One reason being that the technology onboard has changed a lot in the period from, for example, Captain Cook on HMS Endeavour to Captain Mangouras on MT Prestige. Sometimes one can wonder whether modern navigation officers and engineers should be "professors" in order to manage the many sophisticated instruments (or gadgets as written in Paper III). In addition, the fact is that many onboard activities and decisions reluctantly are and have to be (sorry to say) done unplanned and ad hoc.

5.4 Workforce mobility within EU

Free movement of people is a basic pillar of the single economic area of the European Union. It is one of the basic aims of the Union. What has become true for capital, goods and services has to be a reality for people too. Thanks to the rising social and human dimension, the right to free movement has since been extended to include all categories of citizens, to dependants, to students and also to those who are no longer economically active.

Consequently, the right to free movement includes seafarers and students at MET institutions. In practice, this means that for example a Finnish Captain can take up employment on an Italian cruise liner or a Portuguese seaman work on a Swedish product tanker. At the beginning of 2006 this idea has not yet been fully realised. Some countries seek dispensations to protect their own nationals, some refuse to agree and some shipowners declare that the onboard language should be their own and that excludes those looking for the job and not knowing the required language. Many countries demand that passenger ships flying their flag must have a Captain speaking the language of the flag. It also means that, for example, a Greek student can choose to study at a MET institution located in Holland. Perhaps, because of economies of scale, the EU will establish a few MET institutions within the Union. Students from all EU member countries will have the possibility to move to any of these few sophisticated institutions to be educated in shipping and maritime related subjects. The question is: are teachers and students prepared to meet this eventual boiling pot of cultures and languages? None the less, the concept would be a great contributor

to MET harmonisation. Benchmarking from the lessons learnt from the operation of WMU would perfectly come to practice. The ship-owners would have a better control of the crew - their knowledge and skill. In chapter 4.1 the issue was discussed.

6 A SHORT PRESENTATION OF THE FIVE PAPERS IN THIS THESIS

In order to further comprehend the content of this thesis, below is a short summary of the papers, the reasons for their inclusion and a short discussion on the findings in each paper.

6.1 Reason and content

Initially, there was a *red thread*[33] running through the papers with a reflection on the theme of the conferences where most of the papers have been presented. The *red thread* reflects an effort to make maritime researchers aware of appropriate research strategies when discussing the human factor, the use of labour onboard who cannot properly communicate and the challenge of a multicultural diversified crew complement. These deficiencies should be corrected by giving the MET a responsibility by expanding the curricula. The order of presentation below is slightly different to the order in which the papers were written. The order of presentation is justified by the content.

The papers, presented in various contexts, are the foundation for this thesis. The papers mirror a development in the effort to enlighten the industry on its risk status on multicultural crew and crew's bad spoken English. This new risk, that the industry is encountering, is the legitimate reason and motivation for this research. The result of the research is an effort to contribute to a better understanding

33 The red thread is an admiralty name for the reddish thread plaited into all English navy rope work. If anyone tries to remove the red thread the rope will be destroyed, i.e. the thread is there to prevent pilferage.

of the research is an effort to contribute to a better understanding of the risk and how the risk can be reduced by appropriate and relevant education. By giving people, assigned to work onboard ships, the chance to improve and raise their knowledge in the English language and by obtaining mandatory courses in cultural awareness at the MET institutions it will be one factor in a general effort to increase safety onboard and fewer accidents.

The reason for writing these papers is to enlighten the maritime industry and in particular maritime academics on accomplishing appropriate research when studying human beings and in the report claiming that a qualitative or inductive strategy has been completed. The research studies that the author has studied often declare that a "qualitative method"[34] has been applied (i.e. using qualitative data). In most reports there is no mentioning of how the study has been carried out in practice, no examples and no information on the researcher's right to have opinions on what other people mean by what they say on a specific issue; the researcher's pre-comprehension is also often missing. There are seldom any excerpts shown in the reports on what people actually have said. There is more to a research using qualitative data than to elaborate and highlight the problems on how many yes or no's one can add up from a conversation with different people on a specific question.

Below three examples of studies where perhaps better information on the researchers and the research strategy could be helpful in judging the value of the reports:

1) Kahveci, E. Lane, T. & Sampson, H. (2001). *Transnational Seafarer Communities*. Cardiff: Cardiff University, Seafarers International Research Centre, (SIRC).

2) Espiritu M. N. C. & Devanadera, N.P. (2003). The Experiences of Filipino Seafarers in a Mix Nationality Crew. *Philippine Journal on Maritime Education and Training*, 1(2) 2003). Cabalawan, Tacloban City: National Maritime Polytechnic.

And to certain extent also:

3) du Rietz, P. & Ljunggren, M. (2001). *Isolde av Singapore*. Stockholm: Sjöhistoriska museet.

34 The word qualitative method or strategy is misleading. The researcher is using qualitative data (conversations, life history etc.) and the analysis of the data is inductive. There are a great number of analysing theories and subsequent methods, usually with philosophical undertones, in an inductive research process.

Contrary to the following ethnographic research study in the maritime field where the report contains a researcher's pre-comprehension and information on the strategy being used:
1) Knudsen, F. (2003). If you are a good leader I am a good follower. *Arbejds- og Maritimmedicinsk Publikationsserie*, No 8/2003. Esbjerg: Forskningsenheten for maritime medecin.

The tendency that researchers are hiding their research strategies is not something new. Cuneo reports in an article "I am struck by how many qualitative works never report the techniques used in data analysis, other than a footnote or a mention in passing" (Cuneo, 2004, p. 3). In Paper III the shipping industry is alerted on the same deficiency.

In the following there is a brief synopsis of the papers included in this thesis.

Paper I.

The paper is research based on conversations with WMU students on how they experience their studies at WMU, both academically and socially. The research aspires to find an answer to the question of how a multicultural student group can find a consensus decision on a given problem. Another effort is to discover the student's social survival and living conditions, their study environment and how the various environments have an impact on their studies. Bronfenbrenner would define these environments as various ecological systems.

The relation between teacher and student is also a constellation of interest. The question is how this relation can have a possible impact on the learning outcome. See also Paper IV.

The paper examines if the students, after two years at WMU, have received the proper knowledge to be managers at shipping companies and organisations alike. The paper discusses how students change their attitudes during their enrolment at WMU; adapting to different learning methods, cooperating with colleagues having different lifestyles, behaviour and different thinking patterns; different cultures.

This paper is wide ranging and covers a variety of observations of students in a multicultural classroom. The prime aim is to discover how students, in groups, come to a consensus decision on a task given to them. The author's ambition has been to discover aspects on cooperation that could be something different than prejudiced.

Paper II.

The shipping industry has been, and constantly is, under discussion in various research projects and this in order to find solutions to operational practices that cause problems to humans, safety, security and the environment. Regarding research where the human factor has a key impact on safety perhaps the applied strategy is not always functional and not academically conducted. When the researcher writes that a "qualitative strategy" has been used the report does not reveal what inductive theory and subsequent strategy has been used to analyse the obtained qualitative data. Often the report contains scarce information, if any, about the researcher (see example in paragraph 4.1 in Paper IV and paragraph 1.5.1 in this thesis) in order to give the reader a chance to evaluate the validity of the analysis.

This paper attempts to offer issues for reflection and to give maritime researchers an idea on recognized study theories and strategies that can be used to arrange collected qualitative data. The choice of strategy usually depends on both type of study and what theory the researcher feels comfortable with. This paper seeks to give an indication on various possibilities.

Alvesson and Sköldberg (1994, p. 10, author's translation) express the opinion that "… it is not method but ontology and epistemology that are crucial in good social studies". Alvesson and Sköldberg convey that instead of strategy it is the conception of reality and a deeper study of being together that is important to be aware of together with an analysis of knowledge and knowledge in relation to what could be described as truth and belief.

In Paper II on page 101 it is written "Shipping companies' civil servants[35]...". The phrasing might be misleading, it should be written: "Employees at shipping companies and civil servants …". Another clarification in this paper would be that the writing on page 96, discussing IMO recommendations (resolutions, codes, etc.), are for guidance only, unless they have specifically been made mandatory through a convention or protocol. The interpretation issues only relates meaningfully to mandatory instruments. On page 95 it is written Maritime Administration. It should be Administration

35 A civil servant is defined as a professional employed of a State.

because the Administration is defined as the Government of the country. The sentence: *To the satisfaction of the Administration* is not eliminated yet. Though IMO and EU are working to further harmonisation by correcting expressions like this and words like: adequate, sufficient, efficient etc.

Paper III.

The IMO has developed a number of model courses in order for active seafarers to be able to update themselves in different areas of the industry and to give MET teachers guidance and examples of good teaching. Curriculum-wise, the courses are not mandatory but examples of good teaching practices and an aid to explain explicit subjects. This paper disseminates the idea of the necessity to include a course in cultural awareness. In Horck (1998b) it is also argued that Part B (which is voluntary unlike Part A) in the STCW-95 should be made mandatory in order to better harmonise the education and better include human factors problematic for the convention.

The aim of this paper is to give the shipping industry a wakeup call on educational dilemmas at MET institutions in relation to what the shipping cluster expects from MET institutions world-wide. The paper also makes the industry aware of other safety deficiencies related to the education of seafarers. A study of the literature on practitioners' and academics' comments on such improvements is the basis for the paper; references can be found in the study.

Paper IV.

This paper gives an example of how an inductive research method, in the sense of using qualitative data, can be accomplished. The examples given are chosen to represent a wider interest to the MET sphere, though the conclusions are not *a priori*. The analysis of some of the conversations focuses on the operation and teaching at WMU. Due to word limit constraints, the paper covers only ten pages. Important details that would have made the coverage more explicit are omitted. The reader would have liked to have some more explanations on the findings but the précis format still brings out some useful aspects of the analysis.

Using WMU as the study environment the subject deals with areas such as how the students learn and appreciate the applied teaching

styles in a culturally mixed classroom. Bearing in mind that the students normally are used to different classroom settings than experienced at WMU, the author uses an application of social constructionist research to study identity changes the interviewee undertakes during the conversation. The target aim is similar to the aim of Paper I but instead using an application of discourse psychology to give an additional focus on the challenges the students are exposed to.

Paper V.

The paper is another petition to alert the shipping industry that there is "something rotten" in the industry. Rotten in the sense: the mixed crew complement, the process on how crew is selected, the low number of crew members onboard and the general reflection that a crew of many cultures, by many shipowners is not considered something positive for the safety of the industry.

More and more shipowners dare not see mixed crews as a positive challenge for the industry's development. Apparently, a great number of shipowners are afraid of diversity. Perhaps, at the same time they are confused because of recent maritime human resource studies[36] that have given the industry ambiguous information.

With examples from articles in maritime professional papers and magazines a summary and conclusion of deficiencies and lack of visible opportunities are discussed.

Perhaps, this paper cannot be seen as a development of the previous papers but the paper can be seen as the core paper to wake up the industry on a risk factor worth considering. The arguments in the paper are founded on previous research. In this paper the results of the studies can be seen as the foundation to the arguments and together with general opinions from the industry the risk is verified.

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36 1) "SIRC", in Cardiff, published *Transnational Seafarer Communities* saying: "…when supported effectively (mixed crews), can operate extremely successfully" (Kahveci et al., 2001, p.26, author's adding in brackets, author's underlining).
2) A Swedish ethnographer published *Isolde av Singapore* with a genral remark that the Captain was worried almost every day (Horck, 2004b).
3) The Philippine National Maritime Polytechnic published a report *The Experiences of Filipino Seafarers in a Mix Nationality Crew* concluding that there are some problems (Devanadera and Espiritu, 2003).
4) In *An analysis of decision-making processes in multicultural maritime scenarios* it is concluded that the issue is not problem free (Horck, 2004a).

6.2 Result and findings

The following is a succinct summary of the findings in the five papers including possible explanations.

Paper I.

A comprehensive conclusion is that the WMU students perhaps are not natural leaders, *per se*, but that the education in question has made them a lot more confident in their approaches to shipping colleagues in different shipping spheres. A slightly sad observation is that when students are not attending classes (during free time) there is a tendency for them to retreat into their cabins at the hostel. For example, at breakfast, lunch, on field studies and when choosing their seats in the classroom/auditorium the students tend to assemble as per their culture. This, in summary, means that the crossculture communication is not that extensive either in class or when off duty. Depending on the teacher, during class hours, there is some compulsion to mix. The WMU students have patience and this together with a high intellectual level makes them rather escape a confrontation than confront (also in Paper IV). In the western world this often is seen as a weakness and not a leadership labelled character.

There was not a major problem in the students' ability to find a consensus decision, though not problem free. The seafarers try to take command, however, they quickly realise that the colleagues with an academic background also can command. The women show a tendency to take the backseat in discussions. Though, often at the end of the discussions, they remind the others in the group what had been discussed on the issue in a lecture or on a field trip etc. Such remarks made the group rethink and the discussion takes a different turn.

The study suggests that rhetoric is introduced in the MET curricula because many students do not articulate with the consequence of lack of communication. Visiting lecturers have made the remark that sometimes it has been difficult to understand the students. It could therefore be advisable that permanent staff attend visiting lecturers lecturing, not only to learn more, but also to help when questions are asked and answered. Often, staff administrative work makes this support complicated.

After having discussed a few research studies on the subject of the human factor in shipping in the conclusion of the paper, it is suggested that maritime researchers tell the readers of their reports about their pre-comprehension in order to make it possible to judge with what right the author can interpret other persons speaking.

In the final conclusion it is stressed that seafarers, students and teachers need courses in cultural awareness. Teaching in a multicultural classroom is not predicament free. This is consistent with findings of studies by e.g. Lahdenperä; see chapter 4.3.

Paper II.

One concluding remark in this paper is that it must be entirely up to the researcher and his or her competence in a subject area to preside over what strategy that should be used to best serve the search for interesting and relevant information. The paper urges researchers to demonstrate how their study has taken form and to include an author's pre-comprehension.

In a classroom there are different discourses that have an impact on the classroom discourse as such. Some impact discourses are more relevant to the classroom discourse than other discourses. In the summary it is stated that discourses outside the classroom have an impact on the social situation and the learning effectiveness in the classroom; a discussion similar to the theories of Bronfenbrenner and his ecological systems (environments). In the paper the question is raised as to the power in the classroom perhaps being someone or something outside the actual classroom. What that something or someone is, of course, is very individual but still if there are common issues that have an impact on the wellbeing of the student and the learning process it would be interesting to know and discover how to reduce eventual negative impacts.

Paper III.

In this paper the UN special agency IMO is urged to develop a model course, with best practice, on human factor and human behaviour questions, in particular cultural awareness. The reason for many accidents is usually explained by fatigue or ergonometric constraints, the human - machine interface. In the paper other reasons equally important are intensively discussed: lack of cultural aware-

ness and crew's weak knowledge in the English language. The MET should incorporate these two subject areas into the curriculum; see also Paper V. The author concludes that the IMO model courses are not made use of very much. Interesting to note is that some countries look upon the model courses as a must in the curricula in order to have the institution recognised according to the IMO white list[37]. On the contrary, the model courses should be seen as guidance for teachers and those who wish to learn more, the inquisitives.

Part of the paper holds a deductive inquiry into the popularity of IMO's model courses. It is shown that 13 percent of the sample[38] do not use or follow the recommendations in the model courses; which is true for this sample. The undersized sample does not have a significant relationship though giving IMO a little wakeup. It appears that teachers with many years on the rostrum cannot accept being told either how to conduct or what to include in the teaching; a self-satisfied, arrogant, proud and stubborn teacher. It is a pity because this leads to a gap in the general efforts to harmonise the education. Unless the model courses are made mandatory in content and in the pedagogic presentation, an additional course in cultural awareness will be less meaningful. With the courses being made mandatory it would be a step towards greater harmonisation of an international MET. Unless a regional MET-lecturing joint venture is established e.g. within any of the trade blocks like the EU, NAFTA, ASEAN, CARICOM, or any other small or big organisation that exists in the world, the cost per student can become unreasonably high. More than once, the IMO has declared the theme of the year to be cooperation. Cooperation, in the meaning of sharing ideas on conducting model courses as well as exchanging experiences on the handling of simulators, will have a positive effect on harmonisation of MET. Cooperation is good for a technically advanced shipping industry, governments, environmental organisations, MET institutions etc. and very important in achieving a MET that is cost effective.

The paper draws attention to other important activities in shipping that deserve a model course: how to collaborate, how to ask

37 The IMO so called "White List" is a list of countries deemed to be giving "full and complete effect" to the revised STCW Convention (STCW-95). There is no "blacklist" for countries not complying with the convention.
38 The sample size was 14 MET institutions worldwide.

questions at a port state control and a surveyor's how to do activities in general, the value of having a good shipping mentality (seamanship in a wider perspective) and teamwork practices (BRM).

Paper IV.

From the study it is found that students, predominantly Asian students, seek clarification of information, by asking country colleagues instead of returning to the teacher. Asian students would absolutely not interrupt the lecturer for clarification. An *ad hoc* student's question could put the teacher in a precarious situation and other students might be disturbed by a question during class. The teacher might lose the *red thread* in the logic of his or her pre-planned presentation. Though, it is less problematic for an Asian student to interrupt a colleague, from another culture.

The following excerpt is an example of above statement. IR is the interviewer (the author) and IE is the interviewee (the student).

> IR: Some students interfere by asking questions does this disturb you, or?
> IE: Of course, too much.
> Paper IV, p.410

In order to be more "private" with the teacher some students prefer to choose their seating in the classroom close to the rostrum (the teacher). This arrangement would justify and make it possible to question, if really necessary. The student in front can more comfortably pretend that the others in the room, the colleagues sitting behind, are non-existent.

It appears that the WMU students are good in changing their role dependent on with whom they talk. Among humans this approach is not unusual. It is a character, a skill, which becomes important when being with others. The Swedish Queen Kristina who made a point[39] of the art of dissimulation states this. It was important to Her Majesty when she had to confront people with different backgrounds and ranks.

Some students could be understood as being in an ethnic imprisonment/captivity, to paraphrase Lundberg (1991). This label is

39 Source unknown.

given because the almost extreme behaviour of students' culture grouping indicates that there is a strong ethnocentricity among the students. Normally, people in Diasporas show strong belief in the inherent. This is a phenomenon also highlighted in Paper I. It is close to impossible to free oneself from one's ethnocentric behaviour towards people from other cultures, even if one tries as much as possible. Instead one should realise (read: be made to realise, because it does not come naturally) that the genuine interest for the unknown is a valuable resource; develop intercultural competence. At WMU, on the contrary, the students appear to prefer an avoidance of confrontation (also in Paper I). From a general point of view the curiosity (chapter 4.1 in Paper V) seems not to be very strong.

The example below is just one example of an answer to a question where the WMU student does not accept certain behaviour. The student prefers to withdraw from the arena rather than argue. 2M is the interviewee (the student).

> 2M: But there has (sic.) been times when eating habits have become offensive, yes, but I just leave.
> (Horck, 2002)

Tolerance necessarily does not mean an appreciation or a positive acknowledgement of a particular phenomenon. Students with a capacity to move between cultural codes, in their professional life, will find themselves being more appreciated and coveted.

The findings lead the author to believe that a relaxed atmosphere in the conversation with this woman has created a level playing field where there is less power distance and therefore the communication has become less constrained. The paper concludes that people may become all alike, or close to alike, in their behaviour if acting in a level playing field. Culture becomes and may act as a barrier of self-defence (only) when the individual confronts with the unknown. The barrier has to be removed and that can practically be done by education.

Paper V.

This paper is a contribution to the BIMCO general assembly and centenary celebration seminar. The paper highlights the problem with mixed crewing on merchant ships and how the shipowners see the mix as a daring challenge or a runaway policy. The author, both in Paper III and Paper V, calls for more education of mariners in English and added lectures in cultural awareness. The verification of discussed statements is mainly built on articles in maritime media and author's conversations with seafarers, shipowners and shipowners' representatives.

It is concluded that no improvements in safety can be achieved until the following four issues have been realised and taken into consideration:

1. Educating ourselves in the behaviour of other cultures,
2. Adopting a stronger leadership,
3. Understanding what really is behind the concept of teamwork and
4. Making additional efforts to talk to each other without bragging with our second language (or foreign language) English using fancy words and pronouncing words not understood. Paper V

Regarding issue 2) strong leadership should be encouraged when teamwork is not functioning and when the crew is not used to flat management. Flat management is often practised in the western world but not very common in societies from where the crew often and normally is recruited.

In order to assist stakeholders on these issues the author urges all shipowners, independent of the type of ships, to adapt the Oil Companies International Maritime Forum's (OCIMF) *Tanker Management and Selfassessment, a best practice guide for ship operations*. The guide contains a good consideration of cultural awareness dilemmas and communication constraints onboard. As long as the advantages of mixed crews is ambiguous the industry need controls that are all according to best practice and according to rules and regulations. It is the mission of the MET to lay a good foundation for a better stereotyping concept and better communication capabilities.

The industry is made aware of the risk of having a crew that becomes alienated because of its bad communication skills. An alienated seafarer, in itself, is a safety risk. An additional reason for crew alienation, Figure 2, is the low number of people onboard a modern ship. There is no time to communicate or socialise.

Figure 2. "An alienated seafarer" (author's title)
Source (picture): Caroline Ann Martin 3/02.
http://www.mildstonescreations.com/

The summary of the discussions ends with a statement that there are not many arguments that endorse mixed crewing. This probably is correct unless people working onboard ships and at MET institutions increase their communication competence (CC), learn how to adapt and that the recruitment pay attention to staff social competence (SC). These factors should be seen as equally important to skills (SK) and intelligence (IQ-level).

In summary, the author believes that staff requirement (SR) in a global maritime industry (including MET) should contain criteria as discussed and be considered in the order presented in the formula below:

SR ~ SC + CC + SK + IQ

Naturally, the SC includes having cultural awareness. With this staff requirement and qualification plus vocational education in relevant areas of occupation we may have less misunderstandings and intolerance. According to the author the above four parameters have dire and obvious effects on safety.

7 STRATEGIES TO ANALYSE QUALITATIVE RESEARCH DATA

When scrutinising the history of research one finds that scientific discoveries often have been made because the researcher has not followed a proven strategy (Hartman, 2004). With this statement, the experimenting and daring researcher should be further encouraged to enter new theoretical starting points. In Alvesson and Sköldberg (1994) the reader is made aware that Glaser and Strauss have the opinion that any researcher can create his own strategy; on one condition: the strategy has been tested for understanding and determining suitability in the empiric application area. In the papers that constitute this thesis, the efforts have been as meticulous as possible to systematically apply great men's strategies (a great women's strategy seams sparse) consistent with canons of Western philosophy.

The research studies in Paper I and Paper IV are empirical in character and with an aim and effort to understand. In the two papers the foundation theory is social constructivism believing that knowledge is derived from social interactions. An effort is made to uncover how students participate in their environments to form a view of their world and the reality around them. In the research process the phenomenon of interest is formulated. Marton has said that researchers seldom have a clear picture of the desire for specific knowledge, how to know it and why knowledge is needed. This thinking is accepted in most researches flagging a social science discipline that studies the human aspects of the world. The assumption is relevant for most theories associated with this postulate.

The common dikhotomia of positive or negative, bad or good, subjective or objective etc., in particular in pedagogy, has in post-modern social sciences changed to a wider perspective where many doors can be, and have been, opened. The crucial question is if new knowledge is useful or not. These perspectives should not be taken to absurdum like in Eco's novel *Il pendolo di Foucault* where Eco with examples portrays burlesque unlimited interpretations as a new phenomenon in (cognitive) relativism. To make something problematic for the sake of making it problematic is work for the researchers in the ivory tower. The author of this thesis wishes his research to contribute to safer shipping through a better MET, *pro bono publico*.

It is commonly realised that it is problematic to understand the human being; human actions show a complicated pattern of reactions, some can be seen and some cannot be seen. Researchers come closer and closer to truth, what now is understood as the truth, but probably none will ever be able to run into the streets and shout "*Eureka*". Kant, elaborating about *das Ding an sich*, once said that "The human mind has not received strong enough wings to surpass the clouds that cover the secrets of the other world (in this context: the human behaviour, cognition etc.), and the inquisitive (read the researcher) has to be given simple but very natural advice to have patience until he or she gets there" (Ahlberg, 1948, p.108, author's translation, authors brackets). The advice is not to worry, because our wings are not made to fly to such knowledge.

In empirically based studies the researcher has to clarify what is being studied and how the study will be carried out.

In this chapter, research related strategies (principles, theories, methods and philosophies) are reviewed with the intention of making the reader observe the author's endeavour that the strategies adopted are not chosen *ad hoc*. More specifically concerned strategies are discussed in chapter 8.

7.1 Constructionism versus constructivism

These two words sometimes cause confusion and in literature and research can be seen as used with different undertones. Not a few writers see constructionism and constructivism indiscriminately. Often the two words are seen as oxymora. In order to make a rational and short explanation of the two words one could define them

by associating them with leading representatives associated with the two words.

a) Constructionism – Berger and Luckmann (both authors of important work on social constructionism)
b) Constructivism – Piaget (the father of genetic epistemology; the study of the development of knowledge)
c) Constructionism ~ constructivism – NN (most writers and debaters)

In the following, a sketchy explanation of the two conceptions:

a) Constructionism

The epistemological position of constructionism dictates that meaning and power are all that we really can claim to know about. A key point is that the source of knowledge is not the human itself but relations between individuals. "The constructionism replaces the individual with the relationship as the base for knowledge" (Kvale, 1997, p. 48, author's translation). The metaphor of construction means that the world is constructed by descriptions and the latter in turn is also constructed. This is why many believe that fact construction is far more rewarding than subjective feelings of certainty.

Social constructionism is accounting for the ways in which phenomena are socially constructed i.e. there is no objective knowledge without a real world and this knowledge cannot be understood outside our senses and neither without a language. It is an approach to psychology which *focuses on meaning and power*.

Berger and Luckmann, are criticised by Potter (2004, p. 13) with him saying that looking for content "… emphasizes people's perception and understanding … than to see processes and construction at work in talk and texts, … it tends to obscure the interactional and rhetorical nature of fact construction …". Potter emphasizes reflexivity that Berger and Luckmann ignore because of an added dilemma of epistemology.

Wittgenstein develops this further and emphasises the implication of realising the importance of understanding the value of words and the logic in an utterance. This means that humans construct life through language and indirectly construct identity and understan-

ding of the world with the selection of words in talking. "...everybody lives his life on a certain language" (Said, in von Brömssen, 2003, p. 14).

According to Potter and Wetherell (1987) the language is a social act in itself. Therefore, it is very important to be able to correctly interpret a message to understand what has been really said. The researcher is describing another person's world with the assistance of an analysis of the other person's language. Potter splits an analysis of the world and finds it to be either a mirror or a construction yard. This is an obvious clash. With the metaphor of a mirror it indicates passivity i.e. the researcher is not doing anything to his object. This might "… blur or distort in the case of confusion or lies" (Potter, 2004, p. 97). Afterwards, in the effort to find the truth, one could reflect if, in Paper IV, the interaction was less active between the interviewer and the interviewee the interpretation would be different.

Lahdenperä (1999) voices the fact that social constructionists realize that also feelings and interrelations between people are, by their nature, built on social constructions. The world is constructed by language and language is a natural phenomenon that creates social reality. This constructed social status is defined and formed from the individual's cultural context. Culture therefore becomes a major part of our social world. From this (ibid., p. 80, text slightly modified by the author) it is further concluded that culture can be studied from the following viewpoints:

a) Cultural artefacts i.e. different cultural products and reproductions like food dishes, art, music and buildings etc.
b) Collective beliefs i.e. what is right and what is wrong etc.
c) Repeated behaviours i.e. traditions, celebrations and rituals etc.
d) Ways of thinking i.e. the use of metaphors, abstractions, and memory functions etc.
e) Feelings, sentiments and emotions
f) Ways of relating to one's environment i.e. family and relatives etc.

In a perspective of social constructionism, the above six points become dependent on both the society we live in *and* a person's culture. An input in social constructionism is that understanding is

the result of a collaborative process. Understanding and meaning is negotiated during a conversation and it is therefore that language and how it is used becomes important (Burr, 1995). With this belief the world cannot be analysed or described as a mirror of some reality but becomes the researchers construction dependent on the context where the person is acting. With this follows it is not possible to reach full understanding. The truth is totally in the eyes of the observer and so has been the strategy in this study.

"The world that makes a theory being the truth is dependent (constructed) on the definitions of the theory" (Hartman, 2004, p. 140, author's translation). He adds that this view on definitions of our views of the world is often called constructionism.

b) Constructivism[40]

Constructivism embodies the idea that learning is best done by doing (experiments) and making things. With this fundamental statement constructivism is a central notion in questions on what we know and how do we know it? This approach to learning is crucial in cultural studies. Doing and making is often carried out in groups and this is why and how people interact becomes interesting and it is interesting because it is often based on earlier experiences in life. This historical perspective helps to explain the reason why people act like they do.

In education constructivism is a learning theory where learning is an active process. Learning has to do with language so therefore constructivism and language are closely related. Bergström and Borèus (2000) have stated that it is not possible to separate between a view on language and a view on reality; a constructivistic view on language and reality. They also say that the language acts as a constructive lens to describe a meaningful reality. Cognitive theories go back to Socrates who found that there are basic conditions for learning. Today constructivism is a word mainly associated with Piaget's cognitive development theories on what children can and cannot understand at different ages; a psychological development. Piaget implies that humans have to construct their own knowledge; a recreated knowledge through experience and experience failure.

40 For good reading on constructivism the author suggests: Sohlberg and Sohlberg (2001, pp. 215-219) and Ackerman at http://learning.media.mit.edu/content/publications/EA.Piaget%20_%20Papert.pdf.

With this theory it follows that the teacher constantly has to assess the students to make sure they have new knowledge that it is the same as the teacher intended. Vygotsky is also associated with constructivism although he emphasizes the influences of cultural and social contexts in learning.

Hauge (2003, p. 22, author's translation) uses constructivist and defines it as "a person who reveals that the other is it". A definition worthy of a philosopher.

c) Constructionism ~ constructivism

As noted above, it is clear that in both definitions the language acts as an important ingredient. Perhaps this is one reason why confusion, or rather an effort to separate the two, is not normally the easiest way out and not crucial for the research as such.

It is written (Burr, 1995; Winther Jörgensen and Phillips, 1999) that social constructivism has the same meaning as social constructionism. Though, Potter is of the opinion that constructionism has a different meaning to constructivism dependent on the academic discipline. In Potter (2004) the explanation of constructivism is made by urging the reader to look at constructionism in the *Index* of his book. This could be interpreted as him seeing no difference in the two words or that he understands constructivism to be a word fully assigned to Piaget. The truth of the two explanations is to be found in comparison. A theory is defined either as true or false dependent on the definition of the theoretical details. This makes the truth relative and not objective.

Constructivism apparently implies a relativistic opinion on the truth contrary to objectivism or realism (Hartman, 2004). Apparently, also here there is no clear separation between the two words. Sohlberg and Sohlberg (2001, p. 215, author's translation) under the heading "Paradigm as research traditions in practice" discuss constructivism saying, "One of the most confusing conceptions in modern research discussions is the notions constructivism and constructionism".

Similar to von Brömssen (2003), in order to avoid a deeper analysis of different meanings of the two words, the words are treated with a similar connotation (intention) in this thesis.

7.2 Inductive analysis

In order to effectively collect qualitative data and complete an analysis it is necessary, and an advantage, if the researcher is familiar with the subject being studied. Sociologists, for example, would dispute this statement and insist that it is possible to be well familiarised with the target area independently of the technical background of the target environment. The author believes that sociologists would say that one does not have to be a prisoner to study the social world of a client in prison. In many senses this is correct but it does not refute the statement. The author would argue that in a study of humans in shipping it is preferable because of the peculiarities of the profession. The report will be better understood by shipping people who then can recognise themselves when the writer is familiar with the shipping jargon. Still, the author deems that the sociologist will insist that the observations from an unbiased eye understand *nudité* just as well because of his or her naivety. With reference to action research Wallén (1996, p. 112, author's bracket) has written "… in order to fully understand e.g. how commissions are handled at an administration one (read the researcher) has to work there oneself or in close cooperation with a civil servant". To the author the statement is considered correct in any inductive study.

In evaluating the research report it is important that the reader has a good picture of the researcher's comprehension of the topic. The reader has to know the practical and theoretical background of the person who has collected the data and who has made the interpretations of the conversations, categorised, analysed etc. With this information, the reader can make valid judgement as to whether the author can interpret the meaning of what other people say.

The qualitative data in this research is obtained mainly from conversations, dialogues, interviews and observations; it comprises the working material of the discourse. The work carried out comprehends: conversations with the interviewees, transcribing the conversations and the categorisation of what has been said. Conversing, transcribing and analysing (transcriptions, observations and questionnaires) are activities counted as part of the analysis. It means that the transcribed conversations, the text, become the paradigm for both hermeneutic and discourse analysis. The objective of the analysis is to understand not to find truth and try to generalise.

Interpreting is part of understanding. The interpretation sometimes can be done successively and the researcher can validate or control the interpretations together with the interviewee and/or a co-researcher (an inductive perspective). All human beings, in one way or the other, interpret what is heard and being observed. Sohlberg and Sohlberg (2001, p. 214, author's translation) made this clear in the statement: "As a human it is almost not possible to live without interpreting and striving for understanding".

One challenge in analysing text is that the interviewee does not always disclose everything. In certain contexts it is not considered correct to say what you think or mean. Another challenge is that sometimes the interviewee mystifies his or her sentences; playing cryptic. Frequently a controversial topic is tactically turned away with a laugh or a counter question or a funny story. A good researcher can find his way out of these complications in finding the truth or the real opinion of the interviewee. To achieve a good result some level of congeniality has to be established between the interviewee and the interviewer. "We may make plausible generalisations about the conduct of people in general. But very few of these will survive careful analysis" Skinner (1953, p. 15). This is not only correct for people's conduct but also for drawing general conclusions from what people speak. Despite various difficulties with extracts and interviewee's behaviour in conversational analyses "Experiments do not always come out as expected, but the facts must stand and the expectations fall" (ibid, p. 13).

7.2.1 Discourse analysis

Fairclough, as discussed in Paper III, defines discourse as a system of expressions that is governed by definite meanings on what is being said, who may speak and what is considered as the truth. He means that every discourse is related to a specific practice. Fairclough (2003, p. 214) defines the discourse strategy as entailing "… detailed linguistic analysis of texts". This statement is contrary to the definition of discourse analysis in the Foucault tradition.

Foucault recognizes a discourse as a mutually created thinking system; a system that clarifies the world. He means that every discourse describes the way epochs and cultures create perspectives and form descriptions of the world. He adds that the discourse concept

cannot be explained unless it is connected to power, knowledge and truth. The important statement is that text analysis alone will not clarify the world and solve any problem unless it is connected to just power, knowledge and truth. This is the reason why discourse is used to find meaning, though, with different aspects within social sciences. The influence of Foucault's theories is effective in most discussions on the subject.

Both Fairclough and Foucault are important when discussing discourse analysis. This is the reason why their views have been mentioned in this sub-chapter.

Today, discourse analysis is frequently used in social sciences. Burr (1995) identifies a discourse to be meaning, metaphors, representation, pictures, histories and expressions that together make a special version of an observable fact.

Potter (2004, p. 105), also important in the area of discourse, explains and defines a discourse to be an activity that is concerned with "…. talk and texts as parts of social practices". This is a broader definition than used by for instance conversation analysts that emphasise interaction.

The major strategy problem when working with discourses is when the interviewee says one thing and does another i.e. there is a discrepancy between words and deeds (Börjesson, 2003). Börjesson certainly has a point: if people answered consistently the effort to understand the meaning of the spoken words would be much clearer and less problematic in the interpretation. In most modern thinking a key issue is: what is thought is not necessarily what is spoken. This is a cynical attitude but should be perceived as a fascinating challenge for the researcher; we cannot fully trust our organs of sense, particularly when the mother tongue is not used.

A general and straightforward definition of a discourse, though defined in an assortment of ways as discussed above, is that it represents a person's different viewpoints on the world. In Paper I and Paper IV different discourse analysis strategies are used in order to enlighten the researcher. In Paper I phenomenography and in Paper IV a social constructivist application on conversation analysis is accomplished. The latter is carried out with an undertone of discourse psychology according to the strategy of Potter.

In the next, there follows a short recapitulation of these two strategies and in addition Bronfenbrenner's ecological systems theory because this theory develops this research aim further to a better understanding of how an individual experiences the world and the way of learning in this world. A second thought makes this theory into a valuable and valid contributory approach to an increased understanding of a student's change in seeing and evaluating the world during two years at the WMU.

7.2.1.1 Social constructivism - Discourse Psychology

This strategy is used in Paper IV in order to demonstrate an alternative to phenomenography, in order to find the meaning/consequence/impact of what the students say based on experiences in their respective worlds. The aim is also to see how the interviewee changes identity during the conversation and to interpret the interviewee's change in order to find a hidden or intricate motif for such changes.

Discourse psychology (DP) understands texts and conversation as constructions of a world oriented towards social activities. Considering language as a dynamic form of social practice it also forms a person's social world including any relationships. It is social activities that make humans act the way they do. According to Potter the ego is seen as a social identity and not an isolated autonomous agent. In empirical studies the focus is on how identities are created and become an object in social discourses. In DP the interview or conversation is considered to be a way to survey how people place importance on various phenomena in a social context.

The biggest difference between DP and other inductive strategies is that there is a special view of the relations between language, meaning and the psychical situation of people. The latter two criteria are considered being built into language. This is the reason why the language has to be studied in order to analyse the genuine meaning of what has been spoken. In conclusion, the objective of DP is to find a legitimate content by analysing the language.

The way humans interpret their lives is not only mirrored in the words used, as such, but also by the metaphors used. Lakoff and Johnson (2003, p. 146) write "… the human aspects of reality … vary from culture to culture, since different cultures have different conceptual systems". Thus, the use of metaphors in much determi-

nes what is considered to be real. The issues of metaphors cannot be either truth or falsity "but the perception and interference that follows from it and the actions that are sanctioned by it" (ibid., p. 158). These ideas have not been fully considered in Paper IV. The use of metaphors should have been given more attention to obtain a supplementary picture of the student's world.

7.2.2 Phenomenography

This strategy is used in Paper I in order to study how students at the WMU appreciate their studies in a foreign country, together with colleagues from different countries and cultures, being taught by teachers from different cultures and discussing and debating in English in order to come to a consensus decision on a given situation.

Phenomenography is a research strategy that encompasses an inductive study to find how students experience, understand, conceptualise and make sense of different phenomena in their respective worlds. This strategy is sometimes used as a complement to other research strategies. In Paper I a triangulation between conversations, questionnaires and observations is used as a multiple cross-checking possibility and therefore part of the methodology. The study becomes an experiential description aiming at an analysis of understanding the student's experiences.

It is understood to be difficult, if not impossible, to separate what a person has experienced from the experience per se. Therefore, phenomenographic thinking is described in terms of what is perceived and thought about, i.e. an aim to find the content of people's thinking.

Wittgenstein said that a line should be drawn between what we can speak of and what we must be silent about. He meant what really matters are what we cannot speak of. However, what we cannot speak of we can still show – we can point out the way we live, think and act at the same time as talking about a certain phenomenon. For instance, when discussing teaching methods and assessment/marking of exams the interviewee naturally hesitates to mention names to explain or to clarify what he or she is craving to say. Explaining with various body signs is therefore sometimes used to make the interviewer understand or better understand what is meant or who is referred to when talking about, for instance, an example of a certain activity in the classroom. In both Paper I and in Paper

IV the interviewees have used body signs to support verbal expressions. Of course, the readers of the transcripts do not fully get such gestures explained but the use of body signs is important when analysing what is talked about. Gestures commonly used are often understood to emphasise a statement. A blink of an eye could indicate an irony in what was said but it could also mean something else depending on what culture the individual comes from.

A phenomenographic strategy is based on a dialogue or conversation/interview to collect data. This is important, because a major point is to understand how a person describes a particular phenomenon with words. Questions given to the interviewee should be as open-ended as possible because then the conversation becomes more relaxed and the result will be more genuine. The research challenge is to interpret the transcribed conversation text. Before interpreting, it is very important that the researcher clearly has made up his/her mind what phenomena he/she really is interested in. Larsson (1986) underlines this in his discussions on analysing text. The selected quotes make up a data pool and the researcher shifts attention to the meaning embedded in the quotes themselves.

According to Moser and Kalton (in von Brömssen, 2003, p. 113), there are three conditions for a successful conversation. The person has to be 1) accessible, have an understanding of and opinions on the topic, 2) able to understand what is said and what is expected of him or her (cognition) and 3) motivated in the sense that the conversation is an engagement on the basis of free will. As will be discussed later, the WMU students who have been partaking in these studies have been very motivated and interested in participating. The understanding has been no problem but the accessibility has been a bit questionable in the first study. Not that the students were not willing to participate – quite the contrary. The problem was that the answers sometimes did not fully contribute to the study. Therefore, in the second study the selection was not random but partly based on grade results. The expectation was that the students better could express them.

In addition to the remarks above, it must be admitted that an oral statement is less binding than the written word. Therefore, the biggest challenge for the researcher is how to justify an opinion on the collected material. Usually, interviews are recorded in order to

be transcribed and so also in these studies. The students in Paper I as well as in Paper IV were relaxed and spoke quite openly, perhaps thinking that what was said would lead to some improvements in and outside the classroom.

The above is far from a full conception of the meaning of phenomenography. But some understanding is necessary because the method is vital in order to assess research validity and reliability or better expressed as transparency and usefulness.

7.2.3 The ecological systems theory - environments

The studies in Paper I and Paper IV were carried out when the students were busy and engaged with work and leisure in their own milieu, i.e. during class hours in classrooms, breaks in the students' cafeteria, during field studies and to a certain extent during leisure hours. The reason for emphasising that the observations and conversations with the students take place in a natural and familiar environment, contrary to study in a laboratory, is extended from the beliefs of Lewin and subsequently Bronfenbrenner. Their theories/systems on the importance of studying different surroundings and the impact it can have on a learner's success has been realised as quite significant. Essential is also to observe and to be aware that learning is dependent on the learner's interconnection between various surroundings and environments. A person's subjective view defines the situation and that view determines actions to be taken. Bronfenbrenner (1976, p. 17, author's bracket) adds to this statement that: "… the impact of the setting (environment) cannot be understood without some information on how the setting, and its various elements, were perceived …". Generally, to have an understanding the researcher has to talk to his research target/s.

The idea of the dependence and impact of different environmental systems on learning outcomes is built on Lewin's statement that research into a human's world should also encompass the environment/s this person is living in and has lived in. It is not a question of simply incorporating the environment as such but also how the individual visualises the environment/s. The environment reflects an individual's experience dependent on how that environment influences that individual and how an individual influences the same environment. Consequently, it is not the words itself but the *meaning*

of the words *in that environment* and in addition the meaning of consequential utterances that are important to understand.

A person's many environments can be dissolved in different and special environments and contexts therein. It is not only the immediate and near environment but also all kinds of identifiable environments that, like circles in water, surround the individual. These environments, or other spheres of a person's life, also stretch back in time. At the WMU there are several environments that could have an impact on a student's view of the world and that directly or indirectly have an impact on his or her learning. Examples of such environments are: different classrooms, the WMU premises, the WMU cafeteria, the WMU student dayroom, en route from the student's hostel to WMU and vice versa, the student's hostel and also during the many visits to industry complexes in different countries, communication with friends and families at home etc. Figure 3 is an illustration of various environments that an individual could be exposed to during his or her life. These complexities are reflected in Paper III where a model course on the human factor should pay attention to environmental changes that the seafarer is constantly exposed to.

These complexities are indirectly and partly reflected upon in Paper I and Paper IV but a deeper analysis is not carried out in any of the papers. No human being should be studied in isolation because the human race does not live a solitary existence. However, a study of an individual's behaviour in a large group is more predictable than if the same reason for certain behaviour exists in a small group. The behaviour of an *einzelkämpfer* becomes even more challenging. With this observation follows the complexity of foreseeing and understanding a specific behaviour in a class or group with few students. Lakoff and Johnson (2003, pp. 229-230) elaborate on the impact of our surroundings by saying that "The experientialist myth takes the perspective of man as part of his environment, not as separate from it. … You cannot function within the environment without changing it or being changed by it".

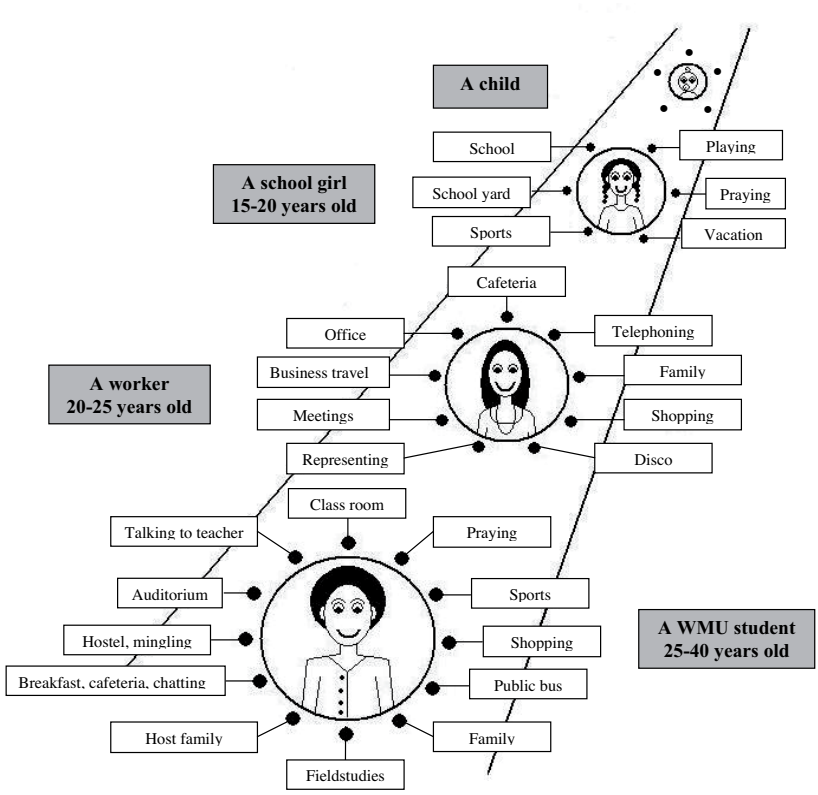

Figure 3. Examples of a WMU student's study environments and how environments in the past can have an impact on status quo. The •'s around the figures symbolize examples of environments that the human encounter during different stages of life. ©

If a student has colleagues from the same culture/country it becomes easy to ventilate personal and non-personal issues in a culturally equal way. Notoriously, groupings become evident with about four/five persons from the same culture. A student who does not have a fellow countryman naturally does not have anyone to talk to. Understanding the culture usually is a prerequisite when ventilating personal matters.

This situation puts the lonely student in a handicapped situation contrary to the students that can group with their fellows. Birds of a feather flock together. From the conversations with the students it is found that the lonely student compensates for the lack of a fellow

countryman with more phone calls and frequent e-mails to family at home. The author has the opinion that the student's contacts with parents, wife/s or husband and children are, in their indirect way, contributing to better academic performance by reducing worries. One can imagine that a student coming from a country with frequent *coups d'état* constantly has to keep himself or herself updated on the political situation in the home country. If the student does not look after his/her interests the work at home might not exist when he or she returns to office after graduation. It was found to be the fact for students employed as government officials, and many WMU students are.

Apparently, the studying environment/s can have a strong impact on the human being's learning capability. Therefore, an educational institute must take this into consideration in managing students. For this reason it becomes understandable that a simple issue such as keeping corridors and classrooms clean and tidy and not using these areas within the premises as storage for e.g. teaching equipment. Most WMU students come from poor countries and usually in their countries there are people to keep office surroundings tidy. It should also be so at their study milieu.

The environmental impact on learning is discussed by Maslow in his discussions on human motivation (the highest human capacity). Desires to know and understand are cognitive i.e. the human being has a genuine interest to understand the world. "They (the human beings) do not experience reality as a threat to existence" Schilder (in Maslow, 1987, p. 23, author's bracket). Independent of what environment humans are operating they still have the curiosity and "we know of no way of defining … a field universally in such a way that this description can be independent of the particular organism (human being) functioning within it" (Maslow, 1987, p. 10, author's bracket).

Bronfenbrenner's strategy on cognition is intended to be used to discover the behaviour and development of a learner. In addition, social interactions, often a second impact factor that depends on who you talk to, come to light as having a direct influence on the individual. Analysing study targets in different environments will enrich new and provocative research questions that will improve the research (Bronfenbrenner, 1976). When doing research on intercul-

tural learning situations this strategy gives a fairly "new" perspective. It is an interesting precaution factor to bear in mind.

The situated cognition theory, as promulgated by Marton and Booth, stresses the same as Bronfenbrenner. They "… argue that situating their students and research participants in authentic situations will help them achieve better research results and ultimately enhance their understanding of educational theories"[41]. The idea is that the environments play an important part in the learning process. The environments or rather the observations from different complex environments must be integrated in the analysis. The consensus is that there is no difference between an individual's subjective world and the real world around the individual (the environment). The world is constituted as a confined/restricted relation between the two worlds.

7.3 Transcribing and analysing text

In order to be able to analyse spoken sentences, *in extenso*, the researcher has to transcribe what has been said during a conversation, interview or dialogue (an expression preferred by Gadamer to define the contact between the interviewer and the interviewee). It is tedious work to listen and listen again to the conversations in order to get the transfer from spoken words to written words as correct as possible. Transcribing is considered to be an important part of the analyses. With this activity, the researcher becomes actively involved in his or her own research.

The following transcription convention has been followed in this research and follows the signs as listed below:

(.)	Break in conversation, without measuring the length of the pause
(//)	Overlapping in speech
<u>focused on</u>	Underlined words indicates these words have been stressed
/	The conversation has changed in content; often a spontaneous change

41 Retrieved on 14 July, 2006 from http://en.wikipedia.org/wiki/Situated_cognition.

[The author's comments on the content of the sentences spoken

… Indicates that the context has been outside the context of this research or that it has been impossible to hear or understand what has been said.

Utterances like mmm or a tired "yes" or "no" have, in most cases, been omitted in the transcriptions.

In the transcriptions the spoken sentences have not been adjusted to make them more readable. However, in the report some of the repartees have been made more pleasant reading but, again, not in the transcriptions. When a speech *erratum* has been made this is properly indicated. Exclamation marks, full stops, comma signs and question marks have been added according to the author's judgements and decisions and to make the text more authentic when seeing it in print.

The above transcription signs are similar, with slight modification to suit this particular research, to those used by von Brömssen (2003).

7.4 Environmental changes - a challenge in class performance

Bronfenbrenner is one of the few that has been able to describe the elasticity of the human being. Humans have a born capacity to adapt to, and to create, an own environment. Bronfenbrenner's ecological systems theory received and still receives recognition in pedagogy. An interesting statement from him is that in the studies of the development of a student one has to see this evolution in his or her social context/s because an individual's development depends on the environment/s (ecology) as such and vice versa. The individual together with the various environments creates interactive processes; this is why the development turns out to be another way around situation. In the individual's ecology there is an existence of other and different individuals that label or pattern an otherwise sterile ecology or milieu. This is a common argument against studies of human beings in laboratories where the researcher easily can get wrong perceptions (Andersson, 1986). The research target can present a more genuine picture of its thoughts and meanings when an opportunity

exists to express this in a milieu where the target is acting and feels comfortable.

Bronfenbrenner's strategy differs from traditional criteria on human development. His criteria are based on "the content on what the child (read individual or any human being) apprehends, wishes, frightens (is frightened about), thinks upon (about) or remembers and how these psychological factors are changed as a function of the environments that it (he and she) is exposed to and becomes integrated with" (ibid., p. 22, author's translation and brackets). Studying the change of the individual's verbal activities can discover the change or development of an individual. The point is that verbal activities change both with time, the actual environment and the context where they are formulated. Paper I, comprising three conversations with the same student pursues the students' development: soon after arriving at the WMU, in the middle of their study period and just before graduation. The student's wording, in response to the same question or the same discussion topic, might not be the same on the three occasions. More often than not the answers differed. Most probably, the reason for the alterations is to be found in a change in the individual's appreciation of the world. For instance, during two years at the WMU the student's stereotyping has been modified.

The older a person is, the more complex his or her environment/s become. One could ask if a more complex environment becomes a hindrance for further progress. If so, where is the optimum age for not having too complex a material to study? The WMU students are not young, average age is about 32 years. As a result of this the student's age could be an extra challenge for the researcher bearing in mind the statement on age and environment complexity.

A student who has not learned to adjust to a new environment, fairly quickly and easily, can be disappointed when his or her academic performance is not in harmony with what is customary for him or her. The student has to mobilize strong efforts to find out how to survive and adapt to new teaching styles, new environments and new contexts for learning etc. Many students, who take up academic studies, not knowing how to take initiatives, will experience anxiety, frustration and often an academic failure. The teacher, seeing the bad results, will feel the same. In order to help the student, before

coming to study, the educational institute has to give information on conditions and procedures in the new study environment (see chapters 3.2 and 4.3). One could find this self-evident but perhaps not always that easy for students in general, having their different cultures to take into consideration.

As has been discussed, Bronfenbrenner talks about the *phenomenological perspective* with the understanding that the researcher should study the target/s in his, her or their many different and experienced environments not only the objective ones (ibid.). In the past, the possibility to study humans *in situ* has been done only to a limited extent. In Paper I and Paper IV there is an effort to analyse how the near environment - fellow students, actions and behaviour of fellow students and teachers etc. - has an impact of rejection or adoption on the student. The various contacts and scenarios that take place in the classroom could be a direct or indirect impactfactor on the student's behaviour and development. The student has to act, learn and survive in the WMU environments and in Sweden with different manners and customs to those at home. Being away from friends, parents and other close relatives makes it natural to find a new setting of comfort; a new temporary close environment. What impact do such settings have on the individual's development and, in particular, the individual's academic progress? Naturally, at least when settling in, an individual is more sensitive to external pressures. If a student is slow in adapting to the new environment during the first semester studies, perhaps the first year of studies, the study result might be lower than expected. The first year is extremely important to the students because the study result will make the student eligible for further studies. To return home after one year when you are supposed to study for two could be tough for both the student and his entire family; more than perhaps is normal in the western world. The point is that such external inconveniences should be assured to be at the minimum in order to get a fair assessment of the student. The students who have taken the English language program have an advantage in this respect. They know their environment when the professional courses start.

At the WMU there is a group of individuals identified as the *Malmö families* who "take care" of a student or several students and indirectly perhaps replace the close environment from home. If

well done, the *Malmö families* should be a needed and positive contribution to the student's development and learning. Of course, this statement very much also depends on the student him/herself and his or her efforts in order to have an easier acclimatisation etc. He or she cannot expect to be spoon fed with activities; the student must also take some initiatives.

8 STUDY STRATEGIES USED IN THE INCLUDED PAPERS

This thesis is essentially based on the dynamics of spoken words and sentences in order to express a student's world. In addition, the research is based on observations of the students to find the impact that an individual student's behaviour, in different contexts and environments, has on colleagues' learning, behaviour and utterances. The latter play an important role in formulating another individual's world. Looking a bit further and beyond this statement, one can realise that the capability to cope with external impacts is important when living and working in a small environment like onboard a ship where there is no opportunity to escape.

Phenomenology and discourse psychology have been chosen as the leading research strategies because the author found from literature studies that they complement excellently. To get information through conversations are not new and has been proven fruitful. The methods of analysing differ but after test conversations the strategies were found to give useful information in order to find cultural constraints and impact on education and learning.

8.1 An overview

Papers I-V show different ways and approaches to make the industry aware of fairly new phenomena that often are considered to have a negative impact on the industry's reputation, quality of the seafarer, quality of safety and quality of operation. The phenomena are culturally mixed classrooms, culturally mixed crews (linked to minimum crew complement) and in addition the often weak English

of the crew. The strategies, in the papers, are phenomenography, social constructionism, as developed to an ethno-methodological theorizing strategy by Potter's discursive psychology, and literature reviews, including thought experiments being understood as holding a wider concept description.

Table 2. Pedagogy impact in papers

Pedagogy impact in papers

Subject areas discussed in the five papers	Paper I Decision making	II Model courses	III Inductive research	IV Extracts	V Mixed manning
A. Human factor training					
Multicultural education in MET		x			x
Interpersonal skills training		x			
Bridge resource management training - BRM		x			x
P&I Clubs human factor training		x			
Model course in cultural awareness		x		x	x
Importance of model-courses		x			x
Lecture hours in human behavior				x	
EU MBA's	x				x
B. Teaching					
An aim is to change identity	x			x	
A lecturer's monolog	x			x	
How do the MET teacher manage - equipment		x			x
Knowledge transfer	x	x		x	x
Flexibility in teaching	x			x	x
Harmonization in teaching		x	x	x	x
C. Learning					
How students seek clarification	x			x	
Students interrupting lecturer	x			x	
Questioning as a learning disturbance	x			x	
Interrupt colleague in talking	x			x	
Implement knowledge	x	x			x
Groupwork - teacher's contribution	x	x			x
Groupwork - composition, size	x	x			x
D. Classroom discourse					
Seat selection	x			x	
Power distance	x	x		x	x
Classroom discourse	x		x	x	
Who has the power in the classroom			x	x	
Multicultural/lingual classrooms		x		x	
Student body a cultural mix	x			x	x
E. Language					
Rhetoric in curricula				x	x
Weaknesses	x	x		x	x
F. Assessment					
Assessment	x			x	
Teacher's judgment of students	x			x	x
G. Other distinctions					
MET - committee participation					x

To give the reader an overview of the content and pedagogy impact in the five papers Table 2 displays subject areas and in what paper these are discussed. The table summarises where various areas of the thesis related to pedagogy are discussed in the five papers. The headlines do not aspire to be complete but merely represent what is most interesting.

8.1.1 Paper I

The research has a major phenomenographic approach: conversations supported by observations and questionnaires. The paper analysis includes the concept of triangulation to increase the research validity. In this research there is a twin triangulation where the sides in triangle I discuss the strategies of seeking truth. Triangle II has sides that represent fixed studying conditions. The three sides in triangulation II are: 1) student's culture and the Swedish culture, 2) a decision making assignment and 3) the WMU educational tradition/culture. In triangulation I the three sides represent: 1) conversations, 2) observations and 3) questionnaires.

In summary, one can say that the research condition is concentrated on how the students can manage and accommodate their studying in a culturally mixed classroom within a WMU learning concept. The analysis is based on the use of a group decision making exercise as the observation strategy and conversations as a strategy to *fish for thoughts and opinions* to paraphrase an expression by Bjerkne (2004). This process of finding new data to give accreditation to the study is looked upon as a paradigm shift according to Sohlberg and Sohlberg (2001).

By this it is intended to mean that the strategy used is adequately modified to suit the study objective. The theoretical framework is flexible.

The two triangulations are illustrated in Figure 4:

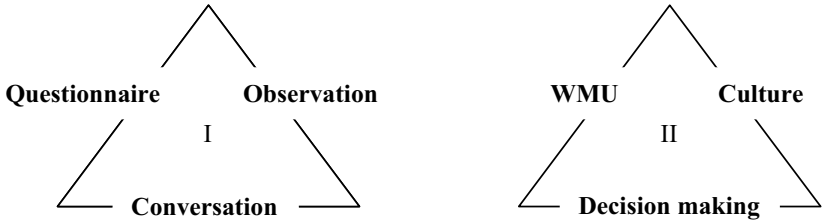

Figure 4. Triangulation. ©

Besides an increased validity, new findings can be discovered by this strategy of cross checking data. This mode of procedure will, in most processes, contribute towards making an eventual cohesiveness of strategies less negligible.

Triangulation I show the methodological technique for the study. It is assumed that there is no way of telling which of the three strategies that should or would dominate. The strategies, therefore, have been chosen believing they have an equal significance. In the conclusion the conversations have been weighted more and therefore constitute the leading/major strategy: this mainly because of the interesting quantity of data that the conversations contributed with compared to the other two strategies.

In triangulation II the context is education in multicultural environments both inside and outside the actual WMU premises. The student's internal and external social environments are also included and together labelled *WMU education*. As discussed earlier, the target chosen for studying the students is their efforts to achieve a consensus decision on a given assignment. The three circumstances are a natural combination and therefore justify being included in one and the same triangulation.

Categorisations of words uttered during stress-free conversations form the base for conclusions. Questions or discussion topics are prepared in advance and expected answers noted in order to be prepared to act in a response to catch bigger fish. The discussion topics are randomly ventilated. The conversations could therefore be categorized as semi-unstructured. The questions are asked when they best fitted in as the conversation progressed. When operating in this mode it is necessary, in order to safeguard eventual surprises in the answers to the discussion topics, to have a list of expected answers

not to surprise the researcher. The discussion with reference to the established categorisations was both inter-subjective and collective in order to enter another person's world of thinking to enrich own thinking.

8.1.2 Paper II

The paper comprehends a small deductive study on the use of the IMO model courses by MET institutions worldwide. The conclusion is that the concept of these courses perhaps, to some extent, is misunderstood. It is not compulsory to use the courses. The courses are merely meant as assistance to teachers and others who need or desire to discuss a specific topic with students or others.

The main research strategy in this paper has mainly been a literary study on the use of the IMO model courses. Based on the author's experiences on the rostrum, since 1980, and studies on the literature on the subject, a recommendation on the development of additional model courses concludes the paper. It is strongly suggested that a course in cultural awareness for seafarers should be developed at the earliest opportunity. Some comments on the need for further model courses are based on constructive thinking and therefore could be labelled a thought experiment strategy i.e. that knowledge can be obtained without an epistemological justification but instead by intensive reflections.

8.1.3 Paper III

This paper is a wakeup call on how academics in the maritime sphere can do better research on the human factor. The information and conclusions in the paper are based on a literature study. By means of reading a good number of maritime research studies focused on the human factor and comparing their findings the author has concluded that many maritime researchers perhaps do not choose the very best methodology in finding the truth. A few prominent philosophers and scholars, that have invented and addressed academically proved strategies, are presented to encourage today's maritime researchers to do their research practising inductive strategies as exemplified in the paper. In 2006 there is no doubt that an inductive strategy is accepted worldwide, though some reservations still exist, with the argument that the strategies do not explain anything, rather the

opposite, they are tools to help the researcher to draw conclusions and this in an authoritative way.

A message is forwarded that researchers should not write that they have done an inductive (qualitative) research without following some specific procedures and that the author must tell the readers 1) what theoretical belief that prevails in the paper, 2) the research strategy (method) that has been used, and 3) inform the reader of the report about the author's pre-comprehension in order to give the readers a chance to judge with what right the author is able to interpret other people's writing.

In the paper it is not underlined that both deductive and inductive or quantitative or qualitative strategies may be used with any research paradigm. It is the researcher's world view that guides what strategy to choose. A more collaborative use of strategies is becoming common, though; some still believe that the best for validity and reliability reasons is to bond oneself to *one* strategy through the whole research. The arguments above are given to the readers by referring to reputable literature.

8.1.4 Paper IV

The paper is a fact and identity construction following a social constructionist theory. It is a strategy of interest in finding the meaning of what people say and to find the identity of the speaker saying certain things. This paper (like Paper I) aims to find a student's apprehension and conception of the experiences gained during the study time at the WMU; socially and cognitively. An ethno-methodological theorising approach is used in order to find how people make sense of their social world and how a person's identity changes during the conversation. Categorising what we see and hear does this. Every human being, in different ways, categorises impressions and situations exposed to. Loseke (2003) states that our constructed categories, in our heads, are important because they influence our behaviour as reflected in talk and gestures. This is why words used are important to study because they are fundamental in creating the categories. In adapting the same concept, the words we have heard and the ones we use are both mirroring our way of stereotyping people.

Put simply, it is the combination of context and words, which gives sense to the utterance. In discourse psychology (DP) Potter (2004, p. 43) makes a point in saying that "what an utterance means will not reach a satisfactory conclusion without some understanding of the occasion on which the utterance is used". Bronfenbrenner using environments instead of occasions to define external elements that have an impact on the human gives similar thoughts.

The identity changes, which a person usually undergoes during a conversation, give the researcher a way to interpret and find the importance of a statement. The interpretation of the changes can clear if an utterance really is meant as it has been spoken. Such a study will also confirm if a specific issue is of real concern to the individual or if it is a triviality. If the interviewee speaks in the first person singular (I) most probably it is an issue that is important and something the person with the spoken words can justify. The person becomes confident and sometimes a bit bossy in speaking in the first person singular. If the interviewee uses first person plural (we), he or she is taking the back seat and is open to modifications on what was said. The opinion, in this case, is not equally firm as when speaking in the first person singular.

In Paper IV the efforts have been to analyse the transcriptions with DP as a l*eading light*, at the same time bearing in mind that the interviewee has English as a second language; i.e. that in expressing herself she has a limited stock of words to choose from. The study merely is a fact/identity construction analysis to find how the student changes her identity, depending on the issue, during the conversation. The female student changes her identity several times during the conversation and this could be explained by her wish to show when she was sure of the answer and when she wishes to cover up by taking a more neutral identification. These identity changes mirror a role that she takes during the talk. A deeper psychological analysis of these roles that she takes on would enhance how she finds the world during her studies at the WMU.

The student and the interviewer managed to establish friendship. This is showed in her frequent interruptions of the interviewer; a phenomenon normally not characteristic of her and her culture and religion. A good interconnection between the interviewer and the interviewee strengthens the validity of the research. Her many smiles

and laughing could be understood as reflecting a relaxed environment but it could also be a facial expression giving certain kinds of reinforcement. To identify a smile in a different culture and compare it to one's own culture is quite challenging.

As reference, and when pertinent, the following aspects have dominated in the analysis:

a) Interpret the effect of a word that the student has used. Not the words seen in the sentence but words in the context (indexicality).
b) Visualize why the student used a specific word.
c) Find the importance that a selected word might have in its context; not the importance of the sentence but the word itself.
d) Understand how the student adjusts to a specific role in a certain context.
e) Find the impact of (not why) misunderstandings and silences.
f) What is the effect of words uttered but impossible to hear and interpret and other mumbles uttered?
g) The words used mirror a thought that the person has at the same time as speaking. From where does the thought come and what generated the thought?
h) What roles does the interviewee take during the conversation? Why does the speaker change footing and what impact does it have on the facts?

In general, and in broad terms, the aim is to find out what is in the student's mind and world regarding her social life and studies.

It is common for people to contradict themselves when talking. If something is considered inconsistent it is explained as a function of the social situation and the individual. The above phenomena are well taken care of in the DP strategy. To analyse how consistency and inconsistency in people's minds are used in rhetoric is also well covered with DP. In Paper IV, the student shows consistency and inconsistency quite unmistakably.

With the aim of getting a statement more secured and being sure that the interviewees speak of own meaning and not something that first has been in a sack before coming into a paper bag, discourse psychology has been the approach in this research.

8.1.5 Paper V

Like in Paper II the strategy is based on constructive thinking, a *thought experiment* strategy where knowledge is obtained by intensive reflections.

The strategy is mainly a literature study in order to convince the readers that the industry does not take proper advantage of cultural diversity. The industry is confused because research reports report differently on one and the same issue: advantages or disadvantages with a multicultural crew? Shipowners start to avoid eventual confrontations by mustering homogeneous crews, see Paper V, p. 28.

Perhaps, the economic situation in many EU countries (the tonnage tax dilemma, expensive airfares for crew transportation, social security rules etc.) indirectly will solve the problem of mixed crews in the sense that again it will be economically logical to hire nationals. This is an issue for the future. But shipping is too economically important to many countries to allow seafarers to be alien species and acquired knowledge to be drained to abroad.

With examples of research studies and literature the paper identifies pros and cons of mixed cultures in the industry. The conclusion does not provide many positive arguments i.e. one can understand the shipowners who start to muster culturally homogeneous crews avoiding diversity. On the other hand, it is shown by an example in USA where Johansson (2004) gives several examples of land-based companies that with clear intentions have employed people from different cultures and are shown to manage extremely well. He writes: "Simply by being aware that there are multiple ways of approaching a problem, he or she will more likely view any situation from multiple perspectives" and to make a travesty of food "Impossible combinations are original and playfully wonderful" (ibid., p. 47, p. 37). In the end of the paper the question is open: why not in shipping?

The case is made that the basis for better understanding of cultural differences is to include it in the MET curricula and to improve the seafarers' English. Hopefully, the life onboard will be much safer and the crew happier and less segregated.

8.2 The research sample

In the papers where a discursive construction analysing strategy was used, the population for the studies has exclusively been students

studying at the WMU. In Paper I the interviewees were randomly selected and in Paper IV the students were chosen. The reason for the latter was simply to obtain proper assurance that the interviewees had something substantial to say. The research material in Paper IV was retrieved from conversations with twelve graduating students in September 2004. The paper contains a few selected extracts from this bulk of conversations and the reasoning in the conclusions of this thesis also contains reflections of the rest: the other students. The study material in Paper I was retrieved from three times fifteen conversations with the same students and conducted at the beginning of two years' study, the beginning of the second year and before graduation. The duration of each conversation, both in Paper I and Paper IV, was about 50 minutes. The samples represent a cultural mix of students and a selection of students with a seafaring background and with a pure academic background. The students with an academic background often had a Bachelor degree or a Masters degree. The academic credentials varied from management, economics and law to technical science areas. All students came from work in the maritime industry: shipping companies, ports, shipping ministries, MET institutions, classification societies, ship onboard service or other organisations related to shipping; mainly from high and middle management positions. The average age of the samples was about 32 years.

The students that participated in the research did it with enthusiasm and all who were invited to participate did so with no hesitation. The transcripts are securely kept for the author's future use. There has been no written agreement on confidentiality, only a verbal ditto.

Females represent about 20 percent of the annual student body. Consequently, they were less represented in the sample.

Not any of the teaching staff (permanent or visiting) has been included in the thesis. The reason for this being that the intention mainly was to listen to the students and have their specific view on study conditions at WMU.

8.3 Conversation topics

Conversations have been the basic research material in Paper I and Paper IV. With the intention to understand a possible teaching and learning catch-22 the conversation topics are exemplified below:

a) Some students interfere by asking questions, does this disturb you, or?
b) Where do you sit for instance in CP Hall [WMU auditorium]: front, back? Why do you sit there?
c) Do you think that the assessment of you is negative because you don't say very much in class?
d) Would you stop the teacher by asking a question or tell him to explain again?
e) Who takes the lead in a group? Is it the one who speaks good English, because having good knowledge or something else?
etc.

With the duration of the conversations to be about 50 minutes the topics have been more than the five mentioned above. Some of the questions, or rather conversation topics/subjects, might on paper look leading but on the field there were no stresses on words that could be leading but instead a fluid consequence of what was said directly before.

The topics are mainly related to the interviewee's understanding of his or her world in the classroom and how the teaching and the learning environment in the classroom have had an impact on the learning. Other questions have been related to the learning process in environments outside the classroom e.g. in the cafeteria, on the route between the hostel and WMU, in the hostel and on field trips. As seen in paragraph 7.3.3 there are other environments, in past and present, which influence a person's perception and learning outcome.

9 CONCLUSION AND DISCUSSION

In the shipping industry the shipowners, for commercial reasons, continue to muster multicultural crews not given prior courses in cultural awareness and adequate knowledge in the English language. The MET institutions have not been pro-active and taken an initiative to give their students such courses. The IMO has not managed to introduce these courses as part of the curricula in the STCW.

Based on the findings in this research study, mainly based on studies in a mixed maritime classroom/maritime university, it is realised adequate to extrapolate these findings and apply them to situations onboard ships and generalise. The conclusion is drawn that courses in cultural awareness is needed and that the English needs to be improved for shipping people. An extrapolation of shore based industry experiences and non-maritime educational institutions show that it is relevant that also actors in the maritime world need such courses. A factual that several maritime organisations and institutions have established human element working groups and web platforms for general discussion, indicate that the mixed crewing concept, as implemented today, is not what it should be. The increased number of accidents where the human factor/element has contributed to the accident is another phenomenon underlining that the industry is at risk. The author has made the statement that the industry is at risk on a supposition (hypothesis) based on the findings mentioned above. It is a statement despite the shortage of clear evidence; a weakness due to shortcomings at casualty investigations.

The study further has shown that the students at WMU would benefit in a course in cultural awareness and more time during the ESSP course in order to improve students' spoken English; today

there is an emphasis on writing skills. The latter education is based on an assumption that the students should write an MSc dissertation; but only about 10-15 percent of the students do write dissertations.

The shipping industry apparently needs repeated wakeup calls, before the world faces a major maritime accident for which the reason is lack of cultural awareness and lack of adequate communication skills. As the situation and the prerequisites are today, several studies, including this study, conclude that a mix onboard is risky.

The author is convinced that mustering a cultural mix will increase the risks onboard and put crew, cargo, ship and environment at an increased risk *unless* the crew is given courses in cultural awareness and an improvement in the ship's working language, particularly if it is English. The mission of this very important task should be given to MET institutions.

With emerging observations from this research, the author believes that it is important that MET institutions worldwide become highly specialised and technically highly equipped. The MET student body will be multicultural. A merger of institutions, a sign of globalisation and economy of scale, will therefore require teachers to be trained in how to conduct multicultural teaching and adapt their pedagogy accordingly. The merger will have a strong impact on a needed harmonisation of the implementation of IMO recommended STCW Convention. It will give a real and stronger assurance of the MET quality (good output).

It was stated in the beginning of this thesis that the study is not built upon an expressed hypothesis to proof. The papers serve to be an enlightening and a wakeup call. Seeing from a broad perspective the studies have given the following questions a fairly clear answer:

1) Do the seafarers and the students in MET need to take a course in cultural awareness? – Yes.
2) Is it necessary to raise the level of the seafarers' English skill? – Yes.
3) Is a multicultural crew complementing a phenomenon to be continued in shipping? – Provided education is given according to 1) and 2) above – Yes. If not – No.

4) Is multicultural diversity benefiting the shipping industry? – Yes, with the same reason as the integration and promotion of women in the maritime industry as referenced in STCW-95, Resolution 14.
5) Do MET teachers in the 21st century need cultural awareness education? – Yes.
6) Should an education policy be promulgated in the WMU handbook? – Yes.

Undoubtedly, the answers to above six questions are a ringing - YES.

9.1 Further discussions on the findings in the papers

In order to get an overview of the discussions in this thesis Figure 5 illustrates possible areas that have an impact on maritime cultural awareness; why, how and where (a mind map).

In order to give further validity to this research, in the following, the reader will find thoughts and discussions on the findings and a few additional remarks on multicultural teaching.

The discussions have been sorted according to the following headlines:

Education in cultural awareness
Education in the English language
MET; the classroom context, teaching and learning
Assessing; an academic constraint
A need for a MET education policy
Conducting research on the human element in shipping
Safety at sea

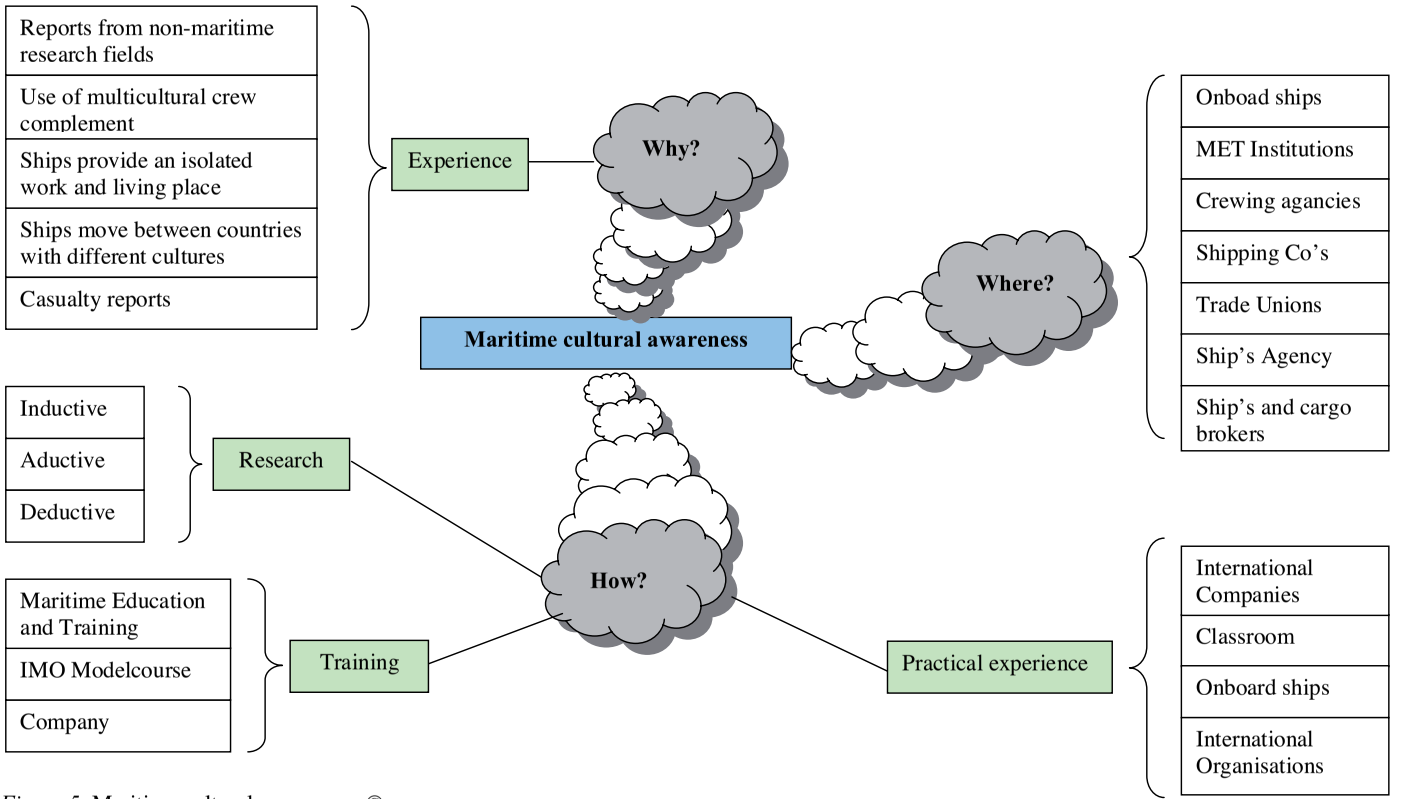

Figure 5. Maritime cultural awareness. ©

9.1.1 Education in cultural awareness

"Concepts of culture and education are, in essence, intertwined. … it shapes our frames of reference, our way of thinking and acting, our beliefs and even our feelings (UNESCO, 2006, p. 12-13). In this way education becomes a survival function of culture. In order to promote this linguistic competencies are a prerequisite to encourage openness to cultural exchange. Students also must be encouraged to talk to each other.

Persons with a tendency to avoid or runaway from conflicts and persons that have a superficial relation to the world would be characterised as dilettantes (Andersson, 1986). This attitude harms the understanding of multicultural identity. For many WMU students the friendship and relationship with colleagues are often no more than a how do you do and how are you etc. With such superficial relationships one cannot exemplify them as having multicultural knowledge; not even having an aptitude to be curious. Stenmark (2003, p. 114, author's translation) similarly finds that onboard ships "Common social activities do not persist onboard …". The contacts are only one way and any communication over the national borders is non-existent; no rule without exceptions. For example, at WMU there are students that have married each other and in the WMU cafeteria there are students that meet at a mixed table but, over time and in a broad perspective, there is a clear tendency to form a group when there are about four/five students from the same culture/country, Paper V, p. 28.

However, there is a level of essential and practical knowledge that should be passed on to people working in culturally mixed environments. Industry managers, ambassadors, missionaries etc. receive such familiarisation by the knowledgeable, those conversant with the subject. Seafarers who meet many different cultures should also have education in cultural awareness instead of having to learn the hard way so as to prevent the making of mistakes a second time, perhaps a third or fourth time. Such mistakes become costly to the shipowners. Likewise, teachers in multicultural classrooms should have the same, or a similar, education in order not to cause any discomfort to the students and perhaps avoid unfairness in the marking of student's exams etc.

Cultural awareness education should be given to the students attending classes in a multicultural setting at the very beginning of their studies. A culture shock could easily be the result if no information is given on the social conditions that a student will meet in a new study environment. A simple example: a student coming from Europe and visiting the toilets at the WMU might be shocked seeing the floor all wet. It has an explanation, it is not the cleaner, but because in some cultures it is not considered hygienic only to use paper after mission completed.[42] When the toilets are not built for washing activities the solution must be that the student manages to resolve the situation as practical as possible. For instance, cleanliness is half of the Faith, according to the Qur'an.

Cultural awareness courses, which MET is urged to introduce, will reduce wrong stereotyping. After the courses, crew (ratings as well as officers) will better understand each other both socially and individually, which will increase ship safety, also on a technical level.

In a multicultural educational institution the students, by definition, have a variety of cultural backgrounds but it is also important that beside the teaching staff the service staff also have a diversified background as a group and they likewise should be trained in cultural awareness, as appropriate.

Perhaps, at the WMU there is a need for a different form of student care; perhaps a care coming from the students themselves. The United World Colleges (UWC), an organisation of ten related international schools, systematically has adapted a scheme where older students meet fresh students. The older students introduce the new students to the system and policy of the new educational institution and its environment; a sponsorship system. Usually the mentor student has the same mother tongue as the new student. Partly, the same procedure is practised at WMU. Only once, has the author heard of a WMU student who preferred the mentor student to come from a different culture and have a different language. Does this indicate that students are genuinely not interested in learning each other to know? Perhaps yes!

42 Recommended reading: Dr. Jane Wilson-Howarth, How to shit around the world: the art of staying clean and healthy while traveling, 2006.

This caring attitude from the university is in line with the principles of Bronfenbrenner who stresses the importance for students to be cared for. None of the students cited in this thesis, Paper I and Paper IV, really made a strong point of a need to be cared for. On the other hand, many students expressed the view that they were well met at the airport and taken to their new living quarters. The students appreciate the courtesy. If the meeting at the airport is very much appreciated by the new students it can be assumed that a continued positive approach with similar care would be equally appreciated. From other discussions with the students, it is the author's impression that something more is needed in this area; an issue that deserves additional analysis. It should be stressed that the courtesy is not mothering or a curling parent approach but to assure that the students encountering a new environment do not hamper the studying.

It has not been the prime reason for this research but interestingly Rajendran (2005, p. 369) found in his research "… that there was a significant difference (P=0.030) between teachers of different ethnic groups on whether communication styles varied according to races". What is obvious is that many teachers, with different cultural backgrounds, are not sure that learning styles (a part result of communication pattern) vary according to cultural belonging/race. A similar conclusion to that discussed by Rajendran can be drawn from the studies in Paper I and Paper IV, but with a different view on pedagogy application. Too much variety can be confusing; lack of continuity. Teachers teaching students with multicultural backgrounds should be given appropriate and deserved time and attention to achieve intercultural competence.

9.1.2 Education in the English language

Language is a special cognitive system that is unique to humans. Vales, dogs and horses etc. also communicate but that communication is not understood as them having an elaborated language comparable to humans. Language also serves social functions and has a social dimension. This is why the author in Paper IV is urging MET to increase the English knowledge for seafarers who, by definition, are set to live and work on an isolated platform with a minimum number of people. One cannot afford to have a subjective work

interpretation of what is said onboard a ship. The words have to be understood with the meaning the words generally stand for. With this follows the need of having a good knowledge in English.

Sir Churchill said about his wife: a common language separates us - the wife came from the USA. This sentence can well illustrate the problems that can occur if two cooperating partners are not conversant. The many pooling arrangements, consortia, alliances etc., being frequent in today's shipping, are examples of organisational setups where communication and behavioural constraints may easily take place. Casualty investigators might report that there have been communication problems onboard or that the English accent was difficult for others to follow. There might be other reasons for an accident or an incident. A reason that, not purposely, has been covered up by saying it is communication constraints but in fact it is the lack of cultural awareness. People in general, and in particular a person who has a commanding position are not inclined to accept that he or she is not able to make himself/herself understood. It is beyond their dignity and of course has a strong negative impact on their ability to have managerial positions.

The principal conclusion, based on the included papers, is that students aiming for a career in the maritime field need better knowledge in the English language, more than a post- beginner's, and lectures in cultural awareness. People should not go to sea, or be allowed to sign on a ship, because it is an alternative to being without work and without skill. The industry will benefit if people go to sea because of a genuine interest and motivation. The interest for a seafaring career should not be different than for any job ashore. However, employing more people onboard ships could compensate the communication dilemma; people with the required technical competence. The days are over when one could take men from the jungles or the deserts and give them work on a ship. Ships' officers need knowledge on how to communicate and manage a multicultural crew complement. Teachers need knowledge on how to communicate and teach in a multicultural classroom and adapt their teaching to satisfy students' different cognitive styles.

The student in Paper IV underestimates her own capacity in managing English. If a student has such a tendency, of course, it will hamper further conversation and breed hesitation to participate in

class discussions. It will make the person feel embarrassed when she cannot find the words directly when they are needed. Naturally, in a written assignment or exam there is more time for the student to find the correct vocabulary. A shy student can do very well in written exams but in an oral exam perhaps less well because of the lack of confidence in talking.

Clear and concise *oral* communication in English remains a vital necessity. Crew has to attain a fairly high level of fluency in English to carry out shipboard routines and to interact with different nationalities. Both the STCW-95 and the International Safety Management (ISM) Code are intended to ensure a common language and with a multicultural crew the common medium of communication should be English.

9.1.3 MET; the classroom context, teaching and learning

From this research, no findings suggest that any student is taking advantage of sharing social values (no rule without exemptions) bearing in mind that after morning classes *it is me and my four walls*, Paper I. Though, it should be noted that during class and before exams and in group work the students appear not to hesitate to share their knowledge. And why should they not - there is no competition between them and by teaching others you learn yourself.

What kind of pedagogy are the students expecting? What pedagogy can the student expect from a teacher having many years on the rostrum but no education in pedagogy? The teacher cannot be an isolated island in the institution. Teachers often appear to be individualist believing that individuals know best. This attitude lends itself less to sharing with colleagues. Teachers should realise that there are colleagues that can give ideas on a better teacher performance in a mixed classroom. Teachers must cooperate and loosen up on there individualism. A MET colleague's empathy can be extremely fruitful in both academic and ethical developments. The subject is complex, challenging and interestingly vital to us all in our contemporary world. Teachers having different ethnic backgrounds and different professional work experiences could be an asset in the staff committee room; it should be an obligation to pass on such knowledge. [*En passent*, also in an academic milieu with research programmes]. To share best practises is a parameter for common success. A key educa-

tional performance indicator is never to work in isolation. In order to have this work out successfully, of course, teaching staff needs to talk to each other and be given time and opportunity to talk. If this is not done on a scheduled basis at least the coffee room is a good arena. Teachers, in multicultural classrooms, need to be confronted with ethnocentric values; benchmark! Chatting is equally important among teachers as well as among students, and very important in a culturally mixed student body (and culturally mixed crew).

Kingston-Mann (in Bigestans and Sjögren, 2004) wonders if it is intellectually difficult for students to understand people from other cultures and if it is an added difficulty to learn in an unfamiliar environment. "Does multicultural learning … require greater cognitive complexity, flexibility, and resilience than monocultural study?" (ibid, p. 148). In our time, still, this question has no clear answer. This is verified by many years of research on diversity teaching carried out at several universities worldwide. Logically, it is assumed that both to teach and to learn follow additional constraints that need to be learned both by teachers and learners. Skills in cultural awareness and teaching in a multicultural context do not follow with birth nor are to be considered uncomplicated.

Teachers, in any context, should exercise critical thinking and question cultural self awareness and attitudes etc. In order, for a teacher, to successfully perform he or she must realise that cognitive skills are anchors of the personal empowerment process in a multicultural society.

To achieve a multicultural classroom society, does not call for any new and special virtues. "The question is rather, in what ways should the traditional virtues and attitudes be accentuated or expressed in the multicultural context" (Roth, 1999, p. 70).

Sometimes the language can conceal the world's real appearance. The author has made this evident in Paper IV where the female student declares that she never would interrupt a teacher but, according to a colleague, a mariner (a Captain), she would interrupt him unhesitatingly. She interrupts the interviewer (being both teacher and Captain) several times during the research conversation. Where is the logic in her behaviour? Any generalisation of her cultural behaviour must be difficult if not impossible. She chooses to sit in the first row in the classroom with the understanding that with her

gestures she will catch the teacher's attention when not fully understanding what he or she is talking about. This is another variation of signal misunderstanding or misconception instead of interrupting and asking. If the lecture is in the auditorium she would choose a back seat beside someone she considers smarter than herself. When she does not understand she could easily whisper to the person next to her to clarify what the teacher is discussing. Another explanation for choosing the back seat is that the student does not find the subject interesting enough to engage her (as in the example).

The excerpt below is an example of how the student is giving a reason for where to sit in the classroom. IR is the interviewer (the author) and IE is the interviewee (the student).

> IR: Where do you sit for instance in CP Hall: front, back or (IE: in the back) (laughing). Why you sit in the back?
> IE: Nnnnnnnn I don't know. Maybe my behaviour (.) but in my University [in country X] I like to sit in the front at front close to professor but it depend on (laughing) / I don't know. Because the seminar is not too serious sir, I think.
> Paper IV, p.412

In order to be good practitioners both teachers and managers need to be able to feel the breeze that the students or the staff might generate for them. Managers and teachers have to make an effort and sort of get under the skin of their subalterns. If this effort becomes fruitful, the subalterns will feel confident in their leaders. Everybody's work performance will increase. This issue becomes particularly important in the classroom where the students must have confidence in their teacher. If the two cannot communicate, or are not allowed to communicate because of cultural barriers, confidence can never be established. This is one reason why the teacher's door always is open to the students at the WMU. Students are welcome to meet and consult any teacher any time. Dr Sohmen (chairman of International Tanker Owner's Pollution Federation, ITOPF) defines cooperation as fairplay. "Fairplay he says, can be regarded as an essential ingredient in all human endeavours and without which cooperation ultimately fails, to be replaced by mistrust and disharmony" (de Bievre, 2006, p. 12). Education requires fair play and part of an educational success is the full access to the teachers; this is why teachers' doors are open.

All education and training should have the purpose of developing human performance and potential; to use the full potential of group performance. Today, the human capacity is considered very important at any workplace. At many graduate schools of business there is an effort to enable MBA students to utilise untapped potentials. There are many situations that influence group work effectiveness. It points to a need for special management strategies to handle the many cultural differences between professionals attempting to work together. Harris et al. (2004) mention a number of external factors affecting the environment and includes diverse elements such as: political-, organizational-, cultural aspects etc. Harris underlines different disciplinary backgrounds of the team members and their individual characteristics. There are many aspects within the environment of the individual to be studied that have impacts on the individual and the individual's learning. The more aspects being identified including how they are interrelated the better the study result.

Generally speaking, cooperative learning and case studies have many advantages. Though, a set of problems contributes to a negative impact on the assessment of students that do not actively participate in group work. The reasons for such passivity can be manifold but certainly the inherited culture is one negative factor. When group work is assessed the non-talkative students draw the short straw. With it follows an unfair assessment. This statement is correct both for young students and studying adults. A better, and perhaps the best alternative, is to allow students to have real practical experience, for example, job placement arrangements, internships or what was previously practised at the WMU: on-the-job training. To have fact knowledge is very important within any area of education. "But to make them (facts and rule-based knowledge) the highest goal of learning is regressive. There is a need for both approaches" (Flyvbjerg, 2001, p. 72, author's parenthesis and italics). The author believes that students would sympathise with the conclusion on human learning expressed by Flyvbjerg (ibid., p. 73): "Concretely, context dependent knowledge is therefore more valuable than the vain search for predictive theories and universals". This has probably been realised by the WMU students who prefer to take elective subjects, to learn more and widen their maritime knowledge, than to be narrow in knowledge by writing a dissertation.

At many educational institutions the students are not prepared to work in a cultural mix (Tesfahuney 1999, von Brömssen 2003, Lahdenperä 2004, Ljungberg 2005). No rule without exemptions. Where it works perhaps the lecturers have learnt to take care of constraints that can appear. The ethnic differences and identities become even stronger the more a mix dominate and characterise the environment. Students withdraw instead of challenging eventual confrontations or inequalities in opinion. One can draw the parallel with school efforts to mix mentally handicapped children with "normal" children or mix clever children with less clever children. Any of these constellations will have one of the components to suffer i.e. be unhappy, thinking to be something more than justified, not living up to required standards, receiving unfair grading because of the groups requirement to have same average results and a standard deviation set to a certain spread etc.

If two individuals cannot stay in the same room for some reason they will be a problem to themselves and to the other people in the room. One should not force people to be together. With appalling vibrations in the air the general learning will suffer. The situation could be compared to having a savant in the classroom. The savant should equally not be sitting with "normal" students but preferably with those alike; *nota bene* during lectures. During non-lecture hours it is probably good that people being different, one way or another, meet other people as well; in fact it should be promoted. Before mixing, those concerned should have an explanation on the mixture.

There are several activities in the class room that can make students annoyed. Such frustration can be a hindrance for effective learning. What could be annoying are the many different habits of teachers. Paper IV does not define habits and pedagogy but, of course, differing behaviours could give room for misunderstandings. An example of this is demonstrated in the excerpt below.

The student comes from SE Asia. She is about 30 years old with no seagoing experience. She is Atheist. IR is the interviewer (the author) and IE is the interviewee (the student).

> IR: So, … one can realize that people learn in different ways. My question is do the professors, visiting and permanent, adapt to different … learning processes?

IE: Yes, I think that all the WMU professors have tried their best to adapt to all these multicultural students but ya there are still some clear features of different professors their culture and their way of talking but I enjoy this multicultural teaching [IR: Ya, but at the same time you say that it can be a bit negative also ……. All these different ways must be confusing for you] It's OK, [IR: it's OK but] ya, sometimes, ya, their habit annoy.

IR: Do you have any idea on how the professors should do to satisfy all the student's different ways of learning?

IE: No, I don't have I think even in [Asian country] I can't be satisfied with any / with all the teachers and professors and I enjoyed this kind of multicultural teaching and if all the professors teaching in the one way will be very boring

Excerpt not previously published

This observation is not totally unique. In Paper I and Paper IV the author has not made it clear what multicultural teaching really is about. It appears from the conversations that again it is not the way of teaching as perhaps was a presupposed hypothesis. IE, in the excerpt above, is more annoyed by the teacher's habits. Generally it is assumed that habit[43] is more equal to behaviour than to pedagogy. The annoyment could also be the teacher's pronunciation of English. In this excerpt the student also admits it would be boring if all teachers teach the same way. It has been noted earlier that it is also the student's activities in several and different environments that contribute to giving him or her best academic results.

In Paper I and Paper IV the author brings to the reader's attention that in some countries females culturally have a subaltern role in the society i.e. the power distance is big between man and woman. For instance, in France many husbands still address their wives with a respectful Madam and in Japan the wife walks three steps behind a conservative husband. When an extremely female person is discussing with a mariner one may think that the clash, the misunderstandings, might be bigger than if she talks to a nonseafarer. However, in Paper IV the woman clearly declares that she can interrupt a seafarer, an

43 With habit is here understood to mean an action which is considered bad or distracting, it is done repeatedly and difficult to stop doing e.g. uttering guttural sounds, joggling with a chalk/marker, tapping the table, spitting on the whiteboard etc.

officer, a lot easier than a teacher teaching. This might be explained by the character of the male seafarer, his intellect and work experience meeting non-nationals during his work. Because of this the mariner's stereotyping of Asian females probably is quite good and he is less prejudiced. This seafarer could also be an exception. He confirms that he does not mind being interrupted by anyone when, for instance, the listener cannot understand him. In Paper IV the author views this phenomenon in a wider perspective in order to draw conclusions from the woman's behaviour. In her opinion, perhaps, she did not recognise the officer student as having a higher social status than she, being an academic. Perhaps, being of the opposite sex, she did not bother either. Clearly, the teacher is a "guru" in the student's culture and is respected accordingly. A seafarer might be seen as having a lot lower status and respected with less distance (perhaps also with a distance pointing down).

At WMU the student body comprises about 20% women. The education of women together with men in a male dominated industry deserves special attention. In Swedish newspapers national education has become a hot topic. In an article in *Sydsvenska Dagbladet* in June 2006 it was mentioned that female students on average do better than the male students in their academic endeavours. Comparing the academic results of women and men in the years 2001, 2002, 2003, 2004 and 2005[44], at WMU, a comparison indicates that the achievements are virtually the same; the rate of difference is 0.25 percent. From Appendix 5[45] the women getting an A-grade after the first year number seven students out of 99 women. For men the same conditions are 31 men out of 374. In the second year the graph shows eight women out of 95 and for the men 25 out of 350. If the average of the grades from the two years is calculated the percentage for women will be that 7.75 percent got an A and 7.70 percent of the men got an A.

Apparently the two genders are doing equally well. Perhaps, the women should be generally better at WMU with the same argument

44 The year 2001 has been chosen as a starting year for the comparison because it is with the 2001 batch of students when the grade-point system was introduced at WMU.
45 In the two tables showing average grades for women and men between 2001 and 2005 the 9-months students are not included. An inclusion of them would distort the comparison because they by definition should be capable to get high grades.

as indicated in the Swedish study? Evidently, they achieve the same grades perhaps because the pedagogy is not suited or there are environmental factors making the result no better than for males. One reasonable explanation is that many of the female students have families and children, i.e. there are obvious possibilities of worries that could take time from studies. A numerical study, during the period 2001 and 2006, shows that 21 percent of the men and 13 percent of the women have written dissertations. An option apparently more preferred by men than women. The men wish to have a wider spectrum of knowledge by choosing electives instead of writing dissertations.

The *gender perspective* is not at all discussed at WMU. It is not wrong to state that in almost any project today the gender perspective is angled in some way or another. The author therefore has the opinion that both the gender perspective and cultural awareness are two subjects that should be further discussed at WMU.

The speech of a person being judged has an equivalent judgement factor to how, for example, his shoes are maintained. The shoes or the dress that a person wears is equally an important judgemental factor, as is his or her speech. The more gold and stars a person is dressed up with the more respect people usually pay to the person. For instance, a Dane carrying a *kasket*, a Maasai putting on his *shuka*, a Red Indian in his fur and feather cap, an Englishman in his three piece pin-striped suit a pipe in his hand a walking stick and a hat on his head, all become highly respected in their respective dress code. Adornments and decorations also confer more respect on an individual. At WMU all students dress informally. Teachers usually wear a tie in class to pay respect to the students. The clothing should therefore not be a factor having an influence on power distance or similar phenomena. It is basic but MET teachers should also be properly dressed because then the students, having almost an ambassador function representing their country in foreign countries, have a good model to emulate. Although, there is no basis to verify, it is assumed that a teacher not properly dressed will not command the same amount of respect, as would a welldressed and softspoken teacher. Teachers, as well as ship's officers, not naturally talented for the job (very few people are) would do better if following an established protocol. A protocol, as well, is a support to those who have

reached their incompetence level. Of course, a condition is that the institution expresses a protocol or policy.

MET is not in existence to satisfy itself. The author has the impression that MET has a tendency to conduct courses, besides the mandatory courses according to the STCW-95, that existing teaching staff have the knowledge and skill (of course) to conduct instead of running courses that the industry as well as the individual wish and expect. MET must be more proactive in coping with requirements and find diverse activities. An example to be proactive and not wait to be told what to do is to start courses with more substantial English and courses in cultural awareness.

If a student has a certain perception of his classroom world, certainly he/she will carry this perception to the workplace, the ship, which is manned with a composition of a culturally mixed crew. If this original perception does not change, the industry will never achieve a decline in accidents caused by the human factor. The MET should be modified in order to give the student a better understanding of other people and so as not to carry a wrong stereotyping concept to work on ships.

9.1.4 Assessing; an academic constraint

During the conversations the WMU students often "complain" that they are subject to too many assessments in order to obtain an MSc. Memory knowledge was also a "hot" subject for discussion. A student who obtains good results in exams assessed on the base of memory does not have knowledge for future practical work. The knowledge has been absorbed like thrusting a nail through a cheddar cheese - it goes in and out equally easy; no holding capacity. In order to assure that the WMU students (at the moment only the shipping and port management courses) have wide and retained knowledge they have to pass an integrated exam[46] that will verify if the students have benefited from the MSc courses.

WMU students aspire to attain a wide knowledge base. It is shown by the fact that the majority of students prefer to choose elective subjects in the fourth semester than to write a thesis. Students wish to have as broad a spectrum of shipping as possible when gradua-

46 With an integrated exam it is understood that any subject area discussed during the studies at WMU can be subject for assessment at this examination that is given in the end of the third semester.

ting. The students are generally not striving for an academic award but more to refresh knowledge to perform better at work.

At WMU there are many varied assessment methods (closed and open book exams, take home assignments, oral exams, group/class presentations, research project writing and dissertation writing) and this indicates that a constructivist approach is practised; all in line with a Piaget discourse. Though, in our modern time perhaps the assessment practices have to be amended and improved to suit a mixed student body. Two additional methods could be added:

a) Individual contribution levels in group work (starting to be practised but still to a minor extent) and
b) An actual individual classroom activity.

The reason for a) and b) is to accommodate the students who are better in expressing themselves orally than being good in writing and not too good in memorising. In order to assist the students the WMU should have an open and declared policy on assessment methods. Students are entitled to know how they are going to be assessed.

9.1.5 A need for a MET education-policy

The author can conclude that there are many factors that can influence a good study result; factors beyond the normal but that become evident in a multicultural setting. As already have been noted, if a teacher focuses too much on discussions and debates, some of the students will feel uncomfortable. Those students that are not used to that learning process and do not have cultural awareness training most probably will not be able to get very good marks. The conclusion must be that pedagogy is a sensitive issue in a multicultural setting. A teacher inclined to crack too many jokes and a teacher not properly dressed are two other types of behaviour that in some cultures will cause the teacher to lose respect and not be able to be the "guru" he often is expected to be; at least not at an MSc study level that should foster individual thinking.

Perhaps, only one factor of the above can be crucial to the student's study result. The marks often become less than expected because the student's different environmental contexts are bothering him or her. The likelihood for such environmental disturbances is higher for

a student studying in a foreign environment. To minimise environmental disturbances an institutional policy should be formulated (see chapters 3.2 and 7.5). With this information, given to the students well in advance, the students would be less surprised and better prepared when arriving at their new study premises.

9.1.6 Conducting research on the human element in shipping

Conversations are analysed as an expression of a world that people create themselves. There can be no doubt that some eastern words of wisdom demonstrate in a noteworthy manner that "verbal answers to verbal questions are necessarily false and no one answer is better than another" (Pearce and Cronen, 1980, p. 38). With such an attitude to the spoken word what substance in a sentence is there to be analysed? Speech is action oriented and varies with the social context. Siddhartha (Buddha) argues that "… a noun is not the name of a thing but an attack on a thing: a noun tears a thing out of its environment …" (ibid., p. 35-36). This remark is significant in Paper I and Paper IV, mainly because the students being interviewed are not brought up with western thinking. In finding the truth, the strategies normally used and the deeper understanding and explanation of the methodologies are philosophies by philosophers from the western hemisphere. Therefore, the philosophies we use are more correct (probably) and pertinent when studying and observing people from the same part of the world. People from other cultures genuinely have other references in life. To generalize findings from these strategies and their undertones give the interpretations perhaps less justice. Such reflections have not been considered in either Paper I or Paper IV. The above remarks indicate that a single understanding of a spoken word is not always obvious. "Language is not a transparent medium for conveying thought, but actually constructs the world and the self through the course of its use" (Wetherell and Maybin, 1996, p. 220).

Inductive study strategies and theories from wellknown men and women are not new. With the knowledge of existing strategies this paper tries to pass on a message that it is a recommendation to discuss, in the research report, what strategy that is used and how it is used. In order to validate the research results it is necessary for the

reader of the report to be aware of the study strategy. The length of the discussion on strategies in the report could perhaps be discussed. As it is today, it appears that inductive research study reports use a substantial part of the report describing the strategy/strategies.

9.1.7 Safety at sea

Lord Donaldson (1994, p. 99) wrote: "… it is certainly true that standards of training vary between countries and that there are fundamental problems of communication with mixed crews, not just because of language differences but also because of cultural differences". This was stated twelve years ago and the problem still is a fact in today's shipping. The merchant marine needs latitudinarians who do not deprecate fellow crewmembers.

The problem is that most of the information reported on these deficiencies in the industry is anecdotal and therefore it does not lend itself to a detailed appraisal. The reader already knows that casualty investigators only sporadically report on the social situation onboard. To report on problematic cultural constraints is something that casualty investigators, ships surveyors, vetting inspectors and port state control officers have only recently started to do.

Realising that the status quo is not what it should be, see Paper V, and that there is a need for an appreciation of diversity (cost cutting efforts to be competitive), the five papers have been written.

From a ship safety point of view, internal communication is important, especially on passenger ships trading between two countries. This is one of the reasons why the maritime legislation in many countries requests crew to be nationals. It is assumed that they are then able to speak the language that is the same as that spoken by the majority of passengers. In case of emergency it has a great benefit.

On 10 March 2006 The Maritime and Coastguard Agency (MCA) issued a booklet named *Leading for Safety; A practical guide for leaders in the Maritime Industry*. The author discusses ten core safety leadership qualities one of which is named "Be sensitive to different cultures". This initiative from MCA is very interesting because apparently the organisation also finds it problematic on how to manage people from different nationalities and cultures. There is a difference in "… fatalism, following rules, risk taking etc." (MCA, 2006, p.

18). MCA has found that "mixed nationalities can lead to splitting into different social groups" (ibid.) and this corresponds to what this thesis discusses regarding the classroom instead of onboard a ship. The mere fact that the subject appears in the MCA-booklet is an added argument to urgently introduce cultural awareness in the MET curricula.

One can imagine an impressive quick action taken after Paper V was presented in spring 2005. Paper V, in particular, emphasises the level of language knowledge necessary to manage also social situations.

An interesting observation is also that the German shipping company *Hapag-Lloyd* has taken its first cadets to sea onboard one of the largest training ships in the world. The cadets are onboard for three to four months and during this time the company places an emphasis on "getting to know other countries, their peoples and cultures" (German owner, 2006, p. 15). This is a formidable and considerable example on a company being proactive and realising that the knowledge is needed in order to get a job well done. The MET institutions should do the same and be a step ahead and not wait to be told what to do.

These research studies have revealed that many of the organisations that are studying safety at sea they do not have or can give a figure on how serious the problem is with seafarers' week knowledge in English and lack of cultural awareness. One would imagine that the port state control centres have information on the deficiencies discussed in this thesis. The Paris MOU has no data. INTERTANKO, BIMCO, or the UK MSA, neither of them gives clear information on ambiguous communications aboard ship, ship to ship or between ship and terminal. A number of sponsors have launched an International Marine Accident Reporting Scheme; a website named *mars*. *Mars* contains a number of anonymous reported accidents but no clear indication on lack of cultural awareness. On the web there is also a site named *Chirp Feedback* (www.chirp.co.uk) where people can report accidents and incidents. The report topics have included: Rosters and fatigue, alcohol use, near collisions, failure of engine fittings, accident investigation failures, fishing vessel safety issues and liferaft standards.

Despite lack of evidence the industry discuss these issues in order to increase safety onboard. The following are a few issues that tend to work:

1. Ensure as far as possible that one "working language" is used even in social situations, and that crew have adequate training in this language
2. Learn the key features of typical behavioural signals exhibited by the nationalities represented onboard – training in this is available (German owner, 2006, p. 19).

One could speculate if IMO takes subjects or issues to the agenda by an "it seems to me" argument. This is all fine; it shows a proactive standing. What could be expected is that an eventual fear will allocate more resources, give more teeth and more power to introduce corrections for the worries. This proactive move will assure that accidents, in the future, do not happen and this because of the same fear that IMO has identified.

In the mid 1990s the common argument was that multinational crews were not, *per se*, a bad idea to reduce the ship's operational costs. It was also assumed that only a very small proportion of serious accidents at sea could be attributed to language deficiencies and not at all because of lack of cultural awareness. There were no reports and verifications that the reasons to accidents were language deficiencies or lack of cultural awareness. Casualty investigators normally did not question relationships between crew and social conditions between the persons involved in the accident.

In the *Crew Performance Project*, carried out by SIRC in Cardiff it is written: "It was found that the number of nationalities aboard in itself did not matter" (Schroeder 1999, p. 80). This is a statement in contradiction to the message that this report is passing on. The author finds the SIRC conclusions unique and difficult to take aboard. The many people onboard, in the past, made it possible to have each and every one controlled by a colleague. This was possible because of the number of people onboard was a lot higher in the past than today.

Gonzalez (2000) found in his research that the factor most important to improve relations on board the Spanish merchant-marine is the officers' command abilities. Beside officer management skill one could rightly link this conclusion with bad communication abilities. A second finding concerned the character of other crewmembers. Certainly, with this statement there must be a link

to culture. One finds that factors that mainly influence relations onboard are linked to attitude. Again, a subject that needs to be introduced in modern MET.

Insurance companies have found that depression and stress are growing phenomena amongst crew. In the Norwegian P&I Club *Skuld's* magazine *beacon* Mason (2006, p. 13, author's italicizing) writes that vulnerability to stress is found to be due to:

1. Changes in technology requiring fewer crew … and greater turn around time with less opportunity for shore relief
2. Changes in legislation and on board routines
3. Increased danger of terrorism and piracy coupled with stricter port regulations … and no or limited chance of shore leave
4. Poor personal relationships
5. Multinational crews
6. Lack of stimulation and motivation

The above shows that the MET needs to take cultural awareness to the curricula and that the MET teachers need to have education in cultural awareness as well. The English should be given additional hours in MET to make personal relationships better, reduce lack of communication and reduce chances for the crew to be alienated onboard. This is further emphasised in Short (2006, p. 4) saying, "Language barriers can prevent normal social interaction on board, causing some crew to become isolated and unhappy".

Realising and assuming that other shipowners follow the Norwegian *JO Tankers* program to prefer a homogenised crew, Paper V, p. 28, perhaps, one should not continue to "force" a mustering of a mixed crew complement. Apparently, the industry is not ready to take the challenge of diversity. The mix today is driven by economical necessities. The politicians instead should promote and make it economical for shipowners to muster nationals.

In summary this research has shown how important it is that teachers working in a multicultural classroom need courses in cultural awareness. It has also been observed that a multicultural crew need courses in cultural awareness and improved skills in talking and understanding English. The MET institutions should, as soon as possible, even if not made mandatory, introduce these subjects into

the curricula. MET leaders should also send their teachers to courses in cultural awareness. The above efforts will lead to less alienation onboard and an increase in ships safety, less accidents and increased personnel confidence. Government should preferably do the funding for such courses. In second hand by the industry itself (the shipowner pays the student's course fee, it is in the shipowners interest) and as a third alternative part of the income from mandatory short courses could support the awareness and language courses.

Instead of investing a lot of money in technical gadgets, as discussed in Paper III, a better and cheaper process could be to invest in the human being. The investment should focus on the introduction of cultural awareness at MET institutions, mandatory cultural awareness courses, bridge resource management (BRM) courses and an extended course in English language communication skills. The Swedish insurance company *The Swedish Club* has started courses in maritime resource management (MRM, extending the issue not only to be the ship's bridge) where the course content includes cultural awareness. The courses have become very appreciated both by owners and crew. The English language course should be extended to more than being able to manage necessary communication in the daily operation of the ship and handling emergency situations. A seaman with weak knowledge in normal communication will become alienated and an indirect safety risk. The latter statement is discussed particularly in Paper V. An alternative could be to increase the crew but probably less interesting because of the costs.

van Ginkel's prophesies (see p. 27) on a world with no fear of diversity management is not something that would come easy to comply with and perhaps always will be there. Though, with education the misunderstandings will be fewer.

9.2 Transparency and coherence

Validity and reliability in social studies are preferably replaced with expressions like transparency, coherence, trustworthiness, and fruitfulness (Winther Jörgensen and Phillips, 2000).

1. Regarding *transparency* the studies have all the empirical material duly documented.

2. The *coherence* in the discursive data from the different conversations assembles well and forms a good basis for the conclusions drawn. The statements also coordinate with the analytical statements presented in the presentation of the theories used for this research. Of course, further studies would perhaps make it possible to better draw general conclusions from the statements.

3. Being part of the *trustworthiness*, alternative conclusions to the observed data are reduced, but of course, there is room for alternative or different interpretations. The strategies used and the observed findings show that the strategies well serve this type of research and therefore strengthen the research trustworthiness.

The strategies used are based on philosophies and thinking directed towards behaviours in the western hemisphere. The mere fact that this thinking perhaps is not relevant in other cultures might give the interpretations a wrong intimation.

The trustworthiness could be questioned bearing in mind that the students use English as a second language and therefore have different understanding of words used during the conversations. The mere fact that the students have a subaltern position to the interviewer might have been a hindrance in giving light to their study situation. The author, though, believes that the relaxed atmosphere compensated for such an argument and believes that the students perhaps instead talked more than they otherwise would have done.

The author does not believe that a sociologist would have a better and "more" naked eye than the interviewer and observer in this study; the trustworthy is not at stake on this issue.

Again, the author argues that there is a need for the researcher to be very familiar with his research material. It would be complicated for a researcher, alien to the maritime world, to understand and to be able to assimilate to various situations in onboard cohabitation. Factors making life onboard a ship different to work at any shore establishment are: loneliness, family separation, peculiar life, limited space, traditions, habits, bad weather conditions etc. Therefore, a point is that the researcher has some experience of the conditions of the seafarers working conditions in order to understand what is being said and what is meant.

Compared to seafarers, perhaps only prisoners (in some countries), monks and researchers at odd places like the Antarctic have similar social challenges. In addition, the work that seafarers do during long voyages e.g. crossing the Pacific Ocean, the Atlantic or the Indian Ocean can sometimes be rather monotonous.

Above it is argued that a researcher working with mariners has to know these working conditions in order to draw the right conclusions from their way of talking and behaviour etc. This statement would be accurate also for studies in MET where the students often are senior people with sea experience. A counter argument might be that an uncoloured/inexperienced mind can perhaps better see what it really is all about. In this particular issue perhaps it is better that a person who knows the conditions do the research. This statement also has its relevance when studying the students at MET institutions because they are geared to this life and most of them already have some sea experience. Their thinking is already coloured by their future occupation.

That the sample selection was not random in one of the conversation series, but selected, is not believed to disturb the trustworthiness; contrary, it probably gave the interviewer more data.

4. The *fruitfulness* tells if there is room for alternative interpretations. There is room for different and additional interpretations, dependent on the researcher and his or her pre-comprehension. Though, from the conclusions it is clear that the industry must act on the problems of multicultural crews and be observant of a future mixed MET classroom. The studies have not given a one way interpretation of the pros and cons of work onboard ships and maritime studies at MET institutions with culturally mixed people. Further observations are needed.

It is argued by Ricoeur (in Alvesson and Sköldberg, 1994) that in social science it is not empirical verifications that show that logic is true but instead the logic of shaped arguments. With this in mind an experienced researcher would be better suited in studies in areas characterised as special and vocational.

It is quite clear that with globalisation also the MET education system is faced with challenges to cope with racial integration

and harmony. Proper attention must also be focused on preparing teachers to teach students of multicultural background. This has not been a study objective in this research. Probably the MET subject syllabuses need reviewing.

9.3 The need for future research

Sjögren (in von Brömssen, 2003, p. 70) realises that the art of "pedagogy has to be rethought in a multicultural, transnational and post-colonial world". Sjögren criticises the repeated talk about shortcomings in pedagogic contexts and also believes that all shortage instead could be seen as recourses. McLaren (in von Brömssen, 2003, p. 70) realises that knowledge and skills brought to the classroom from different parts of the world should have the possibility to create or not create in efforts to develop. With this reasoning, McLaren expresses the need for the education to entail "teaching for hybrid citizenry and multicultural solidarity" (ibid, p. 70).

It would be of interest to study how the teacher's role is changed in a classroom with a culturally mixed student body; additional knowledge that would increase teacher's competence. In addition to this Säfström (1994, p. 132, author's parenthesis) finds it of interest to "… study the socialising content of different teaching practices … to examine content in terms of contingent (dependent on) meaning". It means to have a "holistic object of knowledge … going beyond an essentialist epistemology". Probably an issue the MET should reflect on because normally people do not need knowledge for the sake of knowing; MET is vocational in the meaning occupational.

According to Bronfenbrenner future research should focus on the interaction between the individual and his or her environment. This would be an interesting study to do at the WMU where there are not only different physical environments that have an impact on the student and his/her learning but also many fellow students who carry with them a number of impacts from their own cultures and how these impressions can/cannot influence fellow students.

A follow up of this study should include more of the students' different environments to analyse how study results are affected.

Lahdenperä (1997, p. 12, author's free translation) sees three important areas where research would be central in order to develop knowledge in practical pedagogic work in a multicultural educational institution:

1. Develop knowledge on how to educate and organise learning processes
2. Develop a multicultural content in intersubjects as well as in specific subjects and in the working approach in schools and universities etc.
3. Adapt teacher education to cope with multiculturalism

The above would also be highly relevant in the maritime education field where there are no observations on how it is done today.

As pointed out by Jakobsson (2006), it would be interesting to obtain knowledge on how students with different ethnic backgrounds collaborate and interact during a course. The reason being that according to his study there seems to be significance in how they interact. What constellations work better than others?

As mentioned in Chapter 4.3, further research is needed on pedagogies with a mixed student body. With reference to the readers of this thesis, the target should be students in MET where such studies are very scarce (read zero) at this moment. Another weighty argument for introducing this type of education is that when a student fails in exams it is not necessarily because of the weak language but, equally important, the existence of a cultural barrier.

This research has not studied what demands or requests or expectations that the students might have on the teachers and teaching in different contexts. Research on such thinking would add to a better understanding on how to adapt the actual teaching to accommodate students' cognitive styles.

Human behaviour is complex and truly multicultural human behaviour is a conundrum but a better answer to the challenges of industry because its globalisation can be found in proper research.

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ACRONYMS AND OTHER EXPLANATIONS

BIMCO

The Baltic and International Maritime Council, the world's largest private shipping organization

BRM

Bridge resource management; courses for ships officers to learn about teamwork appreciate the need and value of effective bridge procedures etc. Other similar and mandatory courses are crowd and crises management.
The Swedish Club has started courses in MRM (maritime resource management) including subjects as attitudes, management skills, cultural awareness, communication, authority, leadership, workload, human involvement in error, decision making etc.

CIIPMET

An EC research project on Maritime Education and Training Systems in China, India, Indonesia, and Philippines, European Commission Contract No. B97-B2 7040-SIN 2129-ETU-D4-MP, 1997-1998.

DEVELOPED COUNTRY

There is no established convention for the designation of "developed" and "developing" countries or areas in the United Nations system. The UN has introduced a human development index (HDI) that is a statistical measure that gauges a country's level of human development. Countries with an HDI of 0.8 or more, largely corresponding to what the conventional definition of being a

'developed' country is, exhibit high development.
Retrieved 18 May, 2006 from http://en.wikipedia.org/wiki/Developed_Country

EFL

Learning English as a foreign language.
The aim of the teaching is to give the students the knowledge necessary to be able to read and talk in another language than one's mother tongue. This is the English taught at the WMU to the students before they enrol on the academic programme. The teaching topics are linked to the maritime sphere i.e. the context is related to IMO-issued conventions, codes and regulations; the blue books. The teachers take care of the content.

ESL

Learning English as a second language.
Typically, this sort of English … is learned to function in the new host country, … to perform the necessities of daily life, and the teaching of it does not presuppose literacy in the mother tongue. It is usually paid for by the host government to help newcomers settle into their adopted country, sometimes as part of an explicit citizenship program.
Retrieved on 6 August, 2006 from http://en.wikipedia.org/wiki/English_language_learning_and_teaching

ESSP

English and Study Skills Programme (at WMU).
It is required to participate in the WMU ESSP program if the TOEFL scores are: CBT: 173-227, IBT: 61-87, PBT: 500-569. No ESSP required if the student's scores are: CBT: 230+, IBT: 88+, PBT: 570+.

GA

General Assembly

IAMU

International Association of Maritime Universities. IAMU was founded by seven universities representing the five continents of the world with a shared recognition of significance of maritime education and training in the rapid globalization of the international shipping arena.

Retrieved on 15 May, 2006 from http://www.iamuedu.org/general/introduction.php

IMLA

International Maritime Lecturers Association. The IMLA conference on MET is for decision makers in MET, i.e. senior staff of MET institutions, representatives of educational and maritime authorities responsible for MET, personnel managers of shipping companies, trade union specialists dealing with sea-farers and other representatives of national and international organizations who are concerned with MET.
Retrieved on 15 May, 2006 from http://195.178.246.23/

IMO

International Maritime Organisation is a special agency within the UN.
See further Appendix 1.

INTERTANKO

The International Organisation of Independent Tanker Owners. In 2006 "… as a specific goal, its members will lead the continuous improvement of the Tanker Industry's performance in striving to achieve the goals of zero fatalities, zero pollution and zero detentions".
Retrieved on 15 January, 2006 at http://www.intertanko.

ITOPF

ITOPF is a non-profit making organisation, funded by the vast majority of the world's shipowners. We devote considerable effort to a wide range of technical services, the most important of which is responding to oil spills. Our technical advisers have attended onsite at 500 spills in 90 countries.
Retrieved on 6 September 2006 on: http://www.itopf.com/

MARCOM

An EC research project on The impact of multilingual and multicultural crewing on maritime communications. European Commission Contract No. WA:96-1181.
The main objective of MARCOM is the achievement of successful

communications and the related improvement in maritime safety. The research will deal with the fundamentals in maritime sociolinguistic communications and with ship-ship and ship-shore communication. The components of the study are : a) cross cultural relationships b) operational communications c) social communications d) ship-ship communications e) ship to shore communications f) language analysis g) common guidelines and syllabus h) final integrated report.
Retrieved on 15 September, 2006 from: http://cordis.europa.eu/transport/src/marcom.htm

MCA

The Maritime and Coastguard Agency is an executive agency of the UK Department of Transport

METHAR

Harmonisation of Maritime Education and Training. - i) To contribute to the development of harmonized syllabuses and how those could be implemented ii) To identify needs for the adaptation of MET programmes to the requirements of the maritime industry iii) To assess the impact of modern teaching technology on MET iv). To provide for better understanding of the new STCW Convention and suggest a harmonized approach to the meeting of the Convention requirements v) To enhance the employability and facilitate the professional mobility of MET graduates within the maritime industry and within European countries vi). To increase the competitiveness of the European maritime industry by helping to improve the qualifications of seafarers and other maritime personnel. Retrieved on 15 May, 2006 from: http://www.cordis.lu/transport/src/methar.htm

METNET

A thematic network on maritime education, training and mobility of seafarers. The main aims are to improve the quality, harmonize the contents and extend the applicability of maritime education and training for ship officers (MET) in the EU.
Retrieved on 17 January, 2006 from: http://195.178.246.5/metnet/index.htm

MARITIME INSTITUTION

Is a school/academy where MET is conducted. Since the end of the last century the most common nominative has become a maritime institution for such establishments. In the past it was usually called Maritime Academy

MS AND MT

Abbreviations for Motor ship and Motor tanker

OCIMF

The Oil Companies International Marine Forum (OCIMF) is a voluntary association of oil companies having an interest in the shipment and terminalling of crude oil and oil products.
Retrieved on 15 May, 2006 from: http://www.ocimf.com

P&I Club

Protection and Indemnity Club.

RWTÜV Academy Middle East

Rheinisch-Westfälischer Technischer Überwachungsverein. Is an academy offering technical training and consultancy activities? Organisation that has established professional and academic relationships with several internationally recognized universities and institutions.

SEASPEAK

Seaspeak is a simplified language designed to facilitate maritime communication. There are similar (hybrid) languages for aviation and rail transport. While generally based on the English language, seaspeak has a very small vocabulary, and will incorporate foreign words where English does not have a suitable word. An example: Could not hear what you said, please repeat becomes Say again.

STCW

Standard for Certification and Watchkeeping - a key convention by IMO.

SIDA

Swedish International Development Cooperation Agency

SIRC
The acronym for the research section at University of Cardiff

UWC
United World Colleges. The German educationalist Kurt Hahn envisaged a college for students aged 16 to 18 who were already grounded in their own cultures but impressionable enough to learn from others. Drawn from all nations, the students would be selected purely on merit and potential, regardless of race, religion, nationality, background or financial means.

VHF
Very High Frequency is radio frequencies between 30 MHz and 300 MHz i.e. wavelengths between 10 m and 1 m.

VTI
Statens väg-och transportforskningsinstitut. The Swedish Road Administration' research institute.
Retrieved on 15 January, 2006 from:
http://www.cordis.lu/transport/src/methar.htm,

WMU
World Maritime University - the apex shipping education institution/university within IMO.
See further Appendix 2.

APPENDICES

Appendix 1. International Maritime Organisation, IMO, a rule-setting UN special agency

Shipping is perhaps the most international of all the world's great industries and one of the most dangerous. It has always been recognized that the best way of improving safety at sea is by developing international regulations that are followed by all shipping nations and from the mid-19th century onwards a number of such treaties were adopted. Several countries proposed that a permanent international body should be established to promote maritime safety more effectively, but it was not until the establishment of the United Nations itself that these hopes were realized. In 1948 an international conference in Geneva adopted a convention formally establishing IMO (the original name was the Inter-Governmental Maritime Consultative Organization, or IMCO, but the name was changed in 1982 to IMO).

The IMO Convention entered into force in 1958 and the new Organization met for the first time the following year.

The purposes of the Organization, as summarized by Article 1(a) of the Convention, are "to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships".

The Organization is also empowered to deal with administrative and legal matters related to these purposes.

IMO's first task was to adopt a new version of the International Convention for the Safety of Life at Sea (SOLAS), the most important of all treaties dealing with maritime safety. This was achieved in 1960 and IMO then turned its attention to such matters as the facilitation of international maritime traffic, load lines and the carriage of dangerous goods, while the system of measuring the tonnage of ships was revised.

But although safety was and remains IMO's most important responsibility, a new problem began to emerge - pollution. The growth in the amount of oil being transported by sea and in the size of oil tankers was of particular concern and the Torrey Canyon disaster of 1967, in which 120,000 tonnes of oil was spilled, demonstrated the scale of the problem.

During the next few years IMO introduced a series of measures designed to prevent tanker accidents and to minimize their consequences. It also tackled the environmental threat caused by routine operations such as the cleaning of oil cargo tanks and the disposal of engine room wastes - in tonnage terms a bigger menace than accidental pollution.

The most important of all these measures was the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). It covers not only accidental and operational oil pollution but also pollution by chemicals, goods in packaged form, sewage, garbage and air pollution.

IMO was also given the task of establishing a system for providing compensation to those who had suffered financially as a result of pollution. Two treaties were adopted, in 1969 and 1971, which enabled victims of oil pollution to obtain compensation much more simply and quickly than had been possible before. Both treaties were amended in 1992, and again in 2000, to increase the limits of compensation payable to victims of pollution.

IMO also developed a number of other legal conventions, most of which concern liability and compensation issues.

Shipping, like all of modern life, has seen many technological innovations and changes. Some of these have presented challenges for the Organization and others have presented opportunities. The enormous strides made in communications technology, for example, have made it possible for IMO to introduce major improvements to the maritime distress system.

In the 1970s a global search and rescue system was initiated. The 1970s also saw the establishment of the International Mobile Satellite Organization (IMSO), which has greatly improved the provision of radio and other messages to ships.

In 1992 a further advance was made when the Global Maritime Distress and Safety System began to be phased in. In February 1999, the GMDSS became fully operational, so that now a ship that is in distress anywhere in the world can be virtually guaranteed assistance, even if the ship's crew do not have time to radio for help, as the message will be transmitted automatically.

Other measures introduced by IMO have concerned the safety of containers, bulk cargoes, liquefied gas tankers and other ship types. Special attention has been paid to crew standards, including the adoption of a special convention on standards of training, certification and watchkeeping.

The adoption of maritime legislation is still IMO's most important concern. Around 40 conventions and protocols have been adopted by the Organization and most of them have been amended on several occasions to ensure that they are kept up to date with changes taking place in world shipping.

But adopting treaties is not enough - they have to be put into effect. This is the responsibility of Governments and there is no doubt that the way in which this is done varies considerably from country to country.

IMO has introduced measures to improve the way legislation is implemented, by assisting flag States (the countries whose flag a ship flies) and by encouraging the establishment of regional port State control systems. When ships go to foreign ports they can be inspected to ensure that they meet IMO standards. By organizing these inspections on a regional rather than a purely national basis resources can be used more efficiently.

IMO has also developed a technical cooperation programme which is designed to assist Governments which lack the technical knowledge and resources that are needed to operate a shipping industry successfully. The emphasis of this programme is very much on training and perhaps the best example is the World Maritime University in Malmö, Sweden, which was established in 1983 and provides advanced training for the men and women involved in maritime administration, education and management.

Two initiatives in the 1990s are especially important. On 1 July 1998 the International Safety Management Code entered into force and became applicable to passenger ships, oil and chemical tankers, bulk carriers, gas carriers and cargo high speed craft of 500 gross tonnage and above. It became applicable to other cargo ships and mobile offshore drilling units of 500 gross tonnage and above not later than 1 July 2002.

On 1 February 1997, the 1995 amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 entered into force. They greatly improve seafarer standards and, for the first time, give IMO itself powers to check Government actions.

It is expected that these two measures, by raising standards of management and shipboard personnel, will greatly improve safety and pollution prevention in the years to come.

The emphasis on the socalled "human element" remains paramount for IMO.

Meanwhile, IMO has seen a renewed focus on security issues since the terrorist atrocities in the United States in September 2001.

A new, comprehensive security regime for international shipping is set to enter into force in July 2004 following the adoption by a week long Diplomatic Conference in December 2002 of a series of measures to strengthen maritime security and prevent and suppress acts of terrorism against shipping. The Conference was of crucial significance not only to the international maritime community but the world community as a whole, given the pivotal role shipping plays in the conduct of world trade.

Retrieved on 31 July, 2006 from http://www.imo.org/home.asp
with auther´s amendments.

Appendix 2. World Maritime University, WMU, an apex IMO maritime education institution

WMU was founded in 1983 by the International Maritime Organization, a specialized agency of the United Nations

The University offers only postgraduate degrees: Doctor of Philosophy (PhD), Master of Science (MSc), Postgraduate Diploma (PGD) and Postgraduate Certificate (PGC)

In Malmö, we offer a programme leading to a Master of Science in Maritime Affairs. Students can specialise in one of six areas: Maritime Safety & Environmental Administration, Maritime Law & Policy, Integrated Coastal & Ocean Management, Port Management, Shipping Management and Maritime Education & Training

WMU offers two PhD programmes: one in Maritime Administration, taught in Malmö; the other in Maritime Law, taught jointly with the University of Wales Swansea in Britain.
From 2005 onwards, two new programmes have been offered in China: one in Shanghai, leading to a Master of Science in International Transport & Logistics, and one in Dalian, leading to a Master of Science in Maritime Safety & Environmental Management. The programmes are designed and taught by WMU professors, and the academic standards are the same as in Malmö
WMU also provides an extensive programme of short term Professional Development Courses, joined by about 200 students each year, which offer high-quality professional updating

WMU admits about 100 students to the Malmö programme each year, giving a total student body of about 200 in Sweden. An additional 100 students are admitted each year to the programmes in China

The students graduating in 2005 bring the total of graduates from the Malmö programme to almost 2,100 from 144 countries around the world. About 35% have been from Asia, 32% from Africa, 14% from Latin American & the Caribbean, 12% from the Middle East & North Africa, and 5% from Europe and North America

WMU has made real efforts to attract more female students. Since 2000, women have made up over 20% of each intake

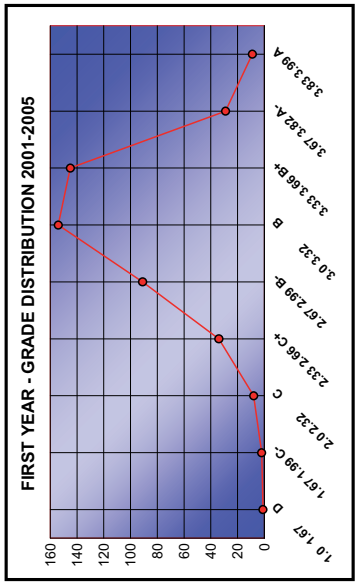
WMU graduates take up senior positions as managers, administrators, policy advisers and educators in the maritime field

The University receives no funding from the UN system, but is financed by voluntary contributions from governments, organisations and companies worldwide. The main donors are Sweden, the Nippon Foundation and the Ocean Policy Research Foundation of Japan, Norway, the International Transport Workers' Federation, Canada, Britain, France, INMARSAT Ltd and Republic of Korea

About 70% of the students are funded by donated fellowships. About 30% are funded by their employer, government, or from personal sources
The University's programmes and research are aimed firmly at the maritime industry. Over 100 Visiting Professors, international experts in their fields, come to Malmö each year to contribute to the MSc programme, and students take part in field studies, visits to companies and organisations in Europe and Asia

Source: Assistant Administrator S. Jackson (31 July, 2006).

Appendix 3a. First year: Grade distribution between 2001 and 2005; gender.



CLASS: 2005

	1.0 1.67 D	1.67 1.99 C-	2.0 2.32 C	2.33 2.66 C+	2.67 2.99 B-	3.0 3.32 B	3.33 3.66 B+	3.67 3.82 A-	3.83 3.99 A	Total
FEMALE	0	0	1	6	24	32	29	4	3	99
MALE	1	2	7	28	67	122	116	25	6	374
Total	1	2	8	34	91	154	145	29	9	473

WORLD MARITIME UNIVERSITY

22/09/2006

Appendix 3b. Second year: Grade distribution between 2001 and 2005; gender.

	2.33 2.66 C+	2.67 2.99 B-	3.0 3.32 B	3.33 3.66 B+	3.67 3.82 A-	3.83 3.99 A	Total
FEMALE	1	16	38	32	6	2	97
MALE	2	72	135	134	15	8	370
Total	3	68	175	166	23	10	445

WORLD MARITIME UNIVERSITY

23/09/2006

Appendix 4. Approvals to use the papers drawn upon in this thesis.

Jan HORCK - FW: request

From: <Hayley.Greenaway@informa.com>
To: <jh@wmu.se>
Date: 23/02/2006 10:32
Subject: FW: request

Our Ref: HG/ TMPM/7150

Dear Captain Jan Horck

Thank you for your correspondence requesting permission to reproduce the following material from our Journal in your thesis.

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CAL MARITIME

March 13, 2006

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World Maritime University
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201 24 Malmö
Sweden

Dear Captain Horck:

I have received your request for permission to reproduce the following material (all written by you) from the *IAMU Journal* in your thesis:

2003: IAMU General Assembly 4 in Alexandria, Egypt: "International maritime legislation and model courses"

2004: IAMU General Assembly 5 in Launceston, Australia: "Why a qualitative research strategy?"

2005: IAMU General Assembly 6 in Malmö, Sweden: "Extracts from conversations representing a social constructionist application on research"

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President

WBE:skb
cc: IAMU Secretariat

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BIMCO

Capt. Jan Horck
World Maritime University
Box 500
201 24 Malmö
Sweden

2 August 2006

Dear Captain Horck,

I have received your request for permission to reproduce the following article, written by you, from BIMCO Bulletin No. 4/2005:

"Getting the best from multi-cultural manning".

As Secretary General of BIMCO, I grant you free permission to reproduce this article, on condition that you acknowledge the original source of publication.

Sincerely,

Carsten Melchiors
Secretary General

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I

MARIT. POL. MGMT., JANUARY–MARCH 2004
VOL. 31, NO. 1, 15–29

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Taylor & Francis Group

An analysis of decision-making processes in multicultural maritime scenarios

JAN HORCK*
World Maritime University, Malmö, Sweden

With three research studies recently carried out the pros and cons of multicultural, multilingual crews have given a 'second' food for thought:

(a) The Seafarers' International Research Centre (SIRC): 'Transnational Seafarer Communities' and the research, 'Finding a balance: companies, seafarers and family life', linked to this [1]. The latter presented in *Maritime Policy & Management*, no. 1, January–March 2003.
(b) The Swedish National Maritime Museum (SNMM): *Isolde av Singapore* [2]. This research and sociological documentation will be reviewed in a later issue of *Maritime Policy & Management*.
(c) Horck, J., 'A culturally mixed student body; the WMU experience in fostering future decision makers' [3].

There is a growing conviction among seafarers and persons working in the land-based sector of the maritime industry (including ex-seafarers) that staff onboard and on shore should be prepared to work with crews and groups whose members come from different countries and cultures and speak different languages. The problem, though, is which culture will have to surrender and which will dominate? Will a third culture become the norm for common survival? Perhaps to understand oneself and be knowledgeable about others is a better way to avoid eventual conflicts.

There are nearly no research findings on how a programme should comprise the aims of facilitating comprehension and appreciation of influences, from differences in cultural backgrounds, on group performance and decisions.

This paper reports on the research carried out on students in the Shipping Management and the Maritime Education and Training courses at World Maritime University (WMU). How do post-graduate students holding unlimited certificates of competency, as well as holders of university degrees with experience in the maritime industry and maritime administration, come to a consensus decision?

The findings in this research are discussed in balance with the results from both the SIRC and the SNMM research which is interesting because the results, in some significant issues, are not the same.

A phenomenographic approach has been used to find out that a multicultural group is not free from working problems. Can cultural differences, perhaps, be developed from an assumed hindrance into a catalyst for stimulating national appreciation and cooperation? Perhaps the opposite is true; it might be a bottleneck for improvements in safety as formulated in the STCW95 and the ISM Code.

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http://www.tandf.co.uk/journals
DOI: 10.1080/0308839310001642021

1. Introduction

Do we have an understandable communication system between players in the shipping industry? Ship owners (owners) in Europe have started seeing a problem in finding nationals to man their ships. Fairly soon, owners might be faced with the fact that there are no nationals that can be taken ashore to work as, for example, fleet managers or superintendents. Can the owners then accept having foreigners in the office with direct access to the top management? One day the Maritime Educational and Training (MET) institutions might be faced with a student body of a cultural mix that they are not trained to handle. Workforce mobility is a key issue on the EU agenda. This situation shall soon be reached unless the reputation of the industry is changed and nationals start to go to sea again.

The language and cultural 'problem' is a challenge in many maritime scenarios. In emergency situations, for instance during crisis and crowd management, it is extremely important, that the concerned persons can communicate and be *quickly* understood.

The industry should be focusing more on the human element rather than spending a lot of money on bridge layout and increased automation. The owners apparently trust automation too much and many accidents at sea are explained as the human factor—fatigue being just one of the problems. Perhaps, we should instead focus research and investigations on the people that have to cooperate onboard. This already accepted difficulty should not be stretched even more to have to deal with the impossible. In the 60s we knew that it was impractical to muster a Hong Kong Chinese together with a mainland Chinese or an Australian together with a British, etc. It was bound to lead to quarrels which would amplify misunderstandings. Nowadays, there is no time to deal with sociological and psychological varieties, and it becomes a safety hazard if people cannot cope with each other or quickly understand each other. Too many owners seem to pay not enough attention to this focusing, instead, on cutting manning costs.

Recent reports indicate both advantages and disadvantages with multilingual and multicultural crew combinations. The discovery varies and the ship owners, when reading these reports, must be puzzled on the results.

This paper, therefore, will help in shading more light on the issue and discuss the subject to make research results clearer.

2. A few key definitions

In the subjects of sociology, ethnography and psychology it is not uncommon that words have different meanings. Therefore, it would be useful to outline some of the terminologies and clarify their definitions.

2.1. *Culture*

There are hundreds of definitions for this word. The following definition is quoted in Mead [4]: 'The collective programming of the mind which distinguishes the members of one human group from another ... Culture, in this sense, includes systems of values; and values are among the building blocks of culture.'

Various social groups have varying cultures and may respond in different ways to similar situations. Culture in this research is used to refer to the values of a national group. Value is defined as how things ought to be in a certain group. According to Mead national culture is one of many factors. This makes it important for managers to have cross-cultural management skills. The history of colonialism shows that the

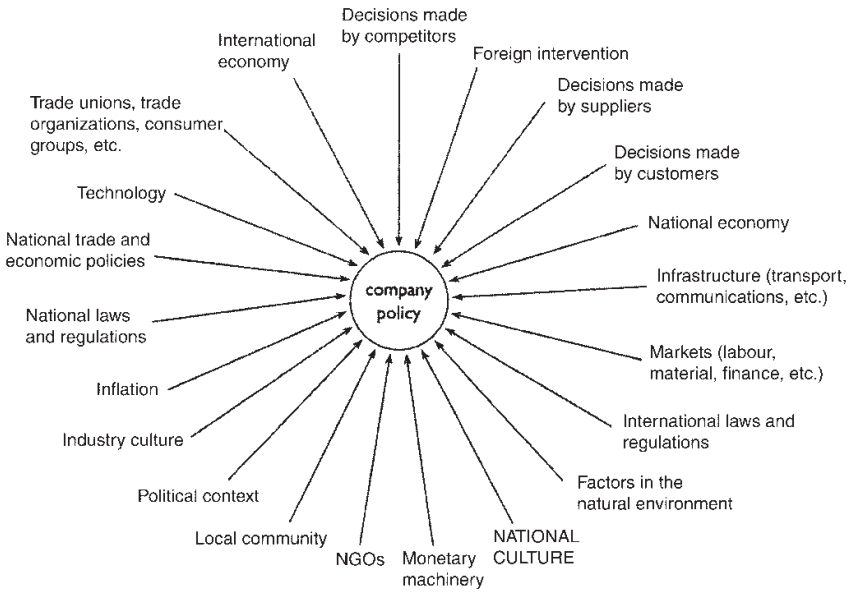

Figure 1. Variable factors having an input on a company's policy [5].

powers that enforced lifestyles and behaviour upon others have failed. A better policy is, perhaps, to learn about other cultures. Figure 1 shows culture as one of the many factors that have an impact on company policy that company staff should pay attention to.

Civilization is a word comprising religion, shared values and common concerns but, at the same time, it does not denote nationality, kinship and ethnicity. Even if the community has a large diaspora it would mean that the culture and ethnicity would not be denoted.

The chasm separating both cultures and religions must be bridged through education and awareness, otherwise globalization efforts will be hard to achieve. With globalization comes the need for people to be able to talk to each other without prejudice.

2.2. *Religion*

There are a number of definitions of religion. A free translation of the meaning according to Stadler [6] is that it is '...the human being's relation to a God'. A relation that contains an intellectual acknowledgement (dogma) and a practical acknowledgement that partly takes form in rites and other sacral acts and partly through a moral that has an impact on human activities, also on a profane level.

Religion, or no religion, is usually very important in a person's life, whether he/she is at home or abroad. In the WMU research this has, therefore, been a key factor when analysing. It would not be totally correct to say that the WMU students belong to the group of not believing or not belonging. They appear to have some basic value commitments in life; the majority of students give the impression of regularly visiting their respective place of prayer.

Luther said that religion is what the heart likes to be attached to. Though, in many cultures, one is usually attached to the same place as ones parents had

their hearts. In Muslim, Christian and, in particular, Roman Catholic countries, religion is important in every-day life and in the community in general. It therefore has a fundamental impact on how people behave.

2.3. *Phenomenography*

This is a study of variation; a variation between different ways of seeing, experiencing and understanding the same phenomena. It encompasses a *qualitative* way in which people experience, understand, conceptualize and make sense of different phenomena in the world around us. This research method is usually complementary to other research methods. It is directed towards experiential description, aimed at analysis and understanding of experiences.

It is difficult, if not impossible, to separate what a person has experienced from the experience per se. Psychologists would aim at learning how people experience things; how people perceive and conceptualize the world. In phenomenography thinking is described in terms of what is perceived and thought about. Phenomenography is more interested in the content of peoples thinking. Descriptions of perception and experience have to be made in terms of content. Between the common and the idiosyncratic there seems to exist a level of modes of experience worthwhile of research [7]. Van den Berg states: 'The phenomenographer never needs hypotheses. Hypotheses emerge where the description of reality has been discontinued too soon' [quoted in 8].

Examples of experiential description are found in such disciplines as education, anthropology, psychology and sociology.

Wittgenstein's well sited notion is that a line should be drawn between what we can speak of and what we must be silent about. The most important is what we cannot speak of. However, what we cannot speak of we can still show—we *can* point out the way we live and the way we act when talking about a phenomenon.

The methodology is based on interviewing as a method to collect data. This is important, because the point of this method is deep-rooted in *how* a person describes a phenomenon [19]. *It is therefore of major importance what questions the researcher asks and how he/she is asking them*. Questions should be as open-ended as possible and conversations should be transcribed. The analyser starts by selecting expressions of interest. These words are classified in terms of their context from which they are taken. One could say that the mission is to interpret a text. Larsson has underlined this; when analysing, it is very important that the researcher clearly has made up his mind what phenomena he/she really is interested in [10]. The selected quotes make up a data pool and the researcher shifts attention to the meaning embedded in the quotes themselves. This becomes an interactive procedure. Expressions (utterances) are then brought together into categories on the basis of their similarities. These categories are not sorted in advance but developed in the process of bringing the quotes together. It becomes a dialectical process dependent on finding a solution to opposing factors. Repeatedly definitions for categories are tested against the data until eventually the whole system is stabilized.

In addition to the remarks above it must be admitted that an oral statement is less binding than the written word. Therefore, the biggest challenge for the researcher is how to justify an opinion on the collected material.

In order to carry out this task the researcher should be familiar with the subjects being studied. It is also important that the reader has the background of the person that has done these interpretations and categorizations, which would make it

possible to judge the quality of the researcher and his/her capacity to make the interpretations, etc.

The above is, of course, far from a full conception of the meaning of phenomenography. However, some understanding is necessary because the method becomes vital in order to value the validity and reliability of research structured around this method.

It would be a challenge, in this forum, to discuss the value of using a phenomenographic research method parallel to a traditional quantitative method.

2.4. *Group decisions*

Group decisions are held because the possibilities for better decisions are increased: a synergy effect is achieved. 'Classical studies of decision-making suggest that group discussion contributes something over and above the statistical pooling of individual contribution' [11]. Ring has noted that a research of group behaviour usually identifies phenomena such as:

(d) Why do some persons turn passive?
(e) Why do some persons become governed by an extreme belief in authority?
(f) Why do some group constellations tend to come to a hasty decision?
(g) Why do some persons avoid giving alternative suggestions with a clear effort not to challenge and thereby prolonging a decision?
(h) Why do some people think that they are better than they are when appearing in a group?
(i) *When is a group sensitive to friction disturbing the work*?

To the last question, the author would add the following two questions:

(j) How does language influence a consensus decision?
(k) Do cultural differences influence the achievement of a good decision?

Whatever we do or discuss together, a decision is based on some kind of standpoint that we have to take. If the communication between the players is not clear naturally the decisions will be based on misunderstandings that could lead to accidents and/or other serious consequences.

2.5. *Triangulation*

A combination of research methodologies clearly strengthens the research validity and reliability. Some researchers feel that a mixture of qualitative and quantitative methodologies should be used. Patton identifies four basic types of triangulation:

(a) Data—the use of a variety of data sources
(b) Investigator—using several researchers
(c) Theory—interpretation of data from many perspectives
(d) methodological—using several methods for the same problem.

In this way a variety of mixes and sampling strategies are possible. It also reflects that the researcher is open to look at things in more than one way. The crosschecking of data strengthens the conclusion.

The author has in this research used questionnaires, observations and semi-structured interviews. The conclusion is based on different perspectives: (1) culture (the culture of the students), (2) the WMU course structure and students' life (because decisions are based on acquired knowledge) and (3) decision-making

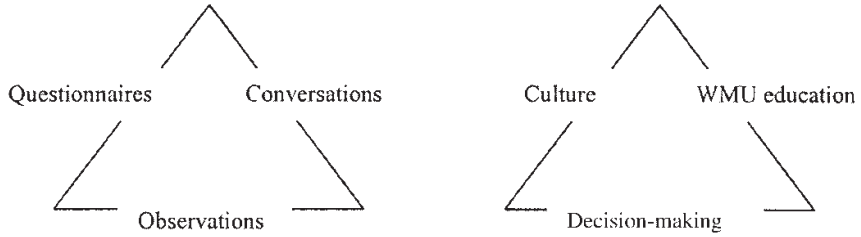

Figure 2. Triangulation on data sources and triangulation on theory.

(how group-decisions are made in a multicultural multilingual environment). Figure 2 illustrates the two concepts of triangulation used in this research.

3. Objectives of the research

It would be of interest to find a method or system on how decisions in culturally mixed group compositions are carried out. Such findings would make it easier for decision-makers to make a rational and quicker decision. Rational in the meaning based upon reason rather than emotion. This is even more important when realizing that too many decisions already are a result of coincidence. Knowledge, experience and engagement play a key role when making a good decision. With knowledge not only the knowledge in the related subject is meant but also knowledge on how people react and behave.

The top management in any company playing in the international market, where contacts have to be made with multicultural partners/customers, should be concerned about this issue.

Students, mainly from developing countries, often see work improvements, discussed during lectures, as practically impossible to implement. The reason being that often they believe it is their cultural background that shackles their efforts to become quality operators. Everyone should realize that it does not matter from where you come or what historical, cultural, ethnic or religious background you have—there are, at all times, the possibilities to be successful. The possibility is always there to change procedures, etc., considering you have the right *attitude* and understanding of the value of a certain improvement. To understand your colleagues, your international colleagues, and be able to play on an even playing field and discuss matters (with knowledge that differences exist between people) then your decisions will lead to a fruitful outcome—a win-win situation.

Knowledge and practice is a key mission in all learning processes, in order to change a student's attitude. The world is getting smaller and education may have to be carried out with a multicultural student body. Therefore, the pedagogues working at MET institutions should take a closer look at the shipping environment and become more international in their thinking. Decisions in the classroom can then more easily be defended and explained, and a fairer assessment is made.

Bearing the above in mind, the objective of this research was to obtain answers to the following five questions:

(1) Are people with a shipping background less influenced by multicultural differences when making group decisions in a multicultural environment than people with no seagoing background at all?

(2) How do seafarers and people working in the shipping sphere take group decisions in a multicultural setting, assuming all group-members have a managerial background?
(3) Is senior shipping staff persistent, or less inclined to negotiate, when taking decisions in a multicultural and multilingual environment?
(4) Do teachers, in MET institutions, have anything to contribute in group work where consensus decisions need to be taken?
(5) How should cultural awareness be passed on to future officers practising teamwork on the ships bridge?

4. Framing of the problems

The discussion of mixed crews, being a part of the human factor concept, has taken form mainly for two reasons:

(1) The frequent occurrences of shipping casualties.
(2) A future problem of scarcity of nationals going to sea and thus the possible negative impact of having to recruit foreigners to work in the head office of shipping companies. This challenge is already a fact with the increasing number of shipping alliances. Certain pooling constellations had to be broken because of the adverse impact of not being able to come to quick decisions and the psychological fact that many people have problems in accepting company protocols. Misunderstandings could present a serious risk in achieving a quality operation/management. This plays a vital role in achieving what is defined as *quality shipping*. One cannot have quality shipping without a quality crew that is able to work together and communicate without hindrance. In the past the alternatives for such shipping companies have been either to close their sheer shipping activities or, if financially strong, purchase (take-over) the other shipping company and keep the hegemony by building a new corporate culture. An example of a broken pooling arrangement is the famous take-over that the Danish container giant, Maersk Line, did when buying another major shipping company, Sealand.

In other words, being part of a management team, with members from different cultures, is becoming more common at shore establishments of shipping companies, at shipping support activities, at MET institutions and onboard ships. Today, the citizens in many countries do not see the work onboard ships as a future lifelong career anymore. The consequence might be that, for example, a Swedish-owned shipping company has its headquarters in the Swedish archipelago, but has to employ non-Swedes to work ashore. This may not sound attractive, to start with, but might become a necessity because seafarers are also normally needed in shipping companies' headquarters and in other companies associated with transportation at sea.

It is important that a group or team is never composed *ad hoc* because intercultural differences could be negative to the group result. Possible differences must be known to teachers and personnel managers in order for them to make up groups with a fair chance to achieve the highest possible output. If there are goals to reach, among groups working on the same challenge, then a group with a poor composition could have an inherent difficulty in being successful. Therefore, knowledge is needed in order to master cultural differences.

5. Method

The method in this research, supervised by pedagogues from Malmö University, School of Teacher Education, is based on observations, questionnaires and individual conversations with students in groups assigned to solve actual tasks related to shipping activities both onboard ship and at company head office.

The conversations were transcribed and analysed. Some group works were videotaped making it possible to analyse each group member's social interaction style. The reason for the research was also to find out if the education delivered at WMU is fostering future decision-makers and team workers, but that is not discussed in this report.

6. Some research findings

Generally, one can say that it has been well documented that students with multicultural backgrounds can discuss and make decisions together without making themselves too much of a nuisance to each other. Perhaps this could have been expected realizing the intellectual level of the persons.

Master Mariners, normally as leaders in their right environment, insist on having their opinions/orders carried out. They are, at the same time, ready to compromise but for the good sake of keeping harmony in the group and to show that the group can agree in a mode of consensus. The mariners' ego and pride would be hurt if this could not be achieved.

The Asians like to take notes and also assure themselves that what has been agreed also is taken to the protocol. The Americans [12], being outspoken, tend to take the lead. The context of these exercises was very serious so the students did waste much time laughing.

Group sizes varied between five to seven persons. The types of group works have, in this report, been given only a short description in order for the participating students to not easily be able to identify themselves or colleagues. Tables 1 and 2 identify some findings from the group works. The figures and the text speak for themselves. However, a few mixed remarks from these and other group works follow below.

Table 1. Behaviour observations 1 [13]. Adopted by A. Soucy

	Group 1 and 2		
Behaviour	America	Africa	Asia
Contributes to ideas	40	31	22
Asks others for their ideas	5	2	5
Reminds group of the task	5	4	9
Summarizes ideas	15	11	10
Asks others for facts, proof, reasons	2	21	13
Offers support for other positions	8	13	6
Disagrees with other ideas	6	14	10
Suggests alternatives	5	12	9
Points out differences among ideas	4	6	4
Points out similarities/relations among ideas	2	2	2
Adds humour	3	2	1
Acknowledges others feelings	0	2	1
Interferes in others talking	18	10	8

Table 2. Behaviour observations 2.

	Question	Group 1	Group 2	Remarks
1.	Conflicts	Conflicts were noted	Different opinions in the ranking	Conflicts have been in both groups but well hidden
2.	Joyful moment	Nothing special noted	A peaceful group interaction	In Group 1 perhaps the American tried to ease the atmosphere. In Group 2 one of the Africans tried the same. Both groups showed general vivacity during the discussions
3.	Leadership	None was taking the lead	A natural leader took command	In both groups the most knowledgeable also seemed to lead the group work
4.	Misunderstandings	Perhaps on language	Perhaps on technical matters	In both groups, to certain extent the language (then the pronunciations) and the difference in technical knowledge were sometimes the reason for misunderstandings that had to be sorted out
5.	Consensus decision	Not usually because presenter presented something different from what group had agreed upon	Generally yes after compromising by some of the participants	Both groups developed a series of arguments during the pre-discussion phase
6.	Arguments	African	American	
7.	Taking notes	Asian	Asian	All participants in the two groups made notes to some extent
8.	Decision maker	None—if so the American	American	Group members liked to emphasize that it was a collective and sharing activity
9.	Seating	*Ad hoc*	*Ad hoc*	Nobody had really speculated on where to sit around the table. Probably they are unaware of what 'power' it can have
10.	Who?	African	American	Consensus answers from both groups and their members
11.	Did members listen to each other?	Yes	Yes	The recording, though, tells that members easily fell into others talk, i.e. not waiting until other speaker finished his/her sentence
12.	Who took lead in discussion after the presentation?	Asian	Asian	

6.1. *Case 1*

The following has been noted from a group exercise [14], where students discuss why a ship loaded with timber arrives at port with half of the cargo hanging over the ship's side. Most of the lashings were broken. The students should explain what went wrong and why and also rank the activities that should have been done to prevent such an accident. To rank means that the group members had to come to a consensus decision, i.e. not voting.

The problem is linked to a shipboard activity. A major contributor to ideas cannot be clearly selected from the two groups. One can find contributing representatives from all continents. But the Americans seem a bit more willing than others to contribute with ideas. To ask others for ideas has not been a characteristic for any of the participants. Evidently there has been no need for such an activity. The Asians, a little more than the others, showed a need to remind the others of the task. The Africans [15] both support and disagree and at the same time they suggest ideas. The Africans also wish to be confirmed in the decisions taken. They want proof and in this way they express a wish to learn.

6.2. *Case 2*

The following has been noted from a group exercise [16], where the students discuss different possibilities to secure a load of grain cargo in a general cargo ship. The criteria for ranking were cost, level of safety and effectiveness.

This is another problem linked to a shipboard activity. In this exercise it was noted that there were some conflicts, though minor. Many seafarers are naturally serious because of their high work responsibilities. In this exercise all students took the situation equally seriously and, therefore, not much room was given to joyful moments. It is a conclusion with slight modification because in the groups with *only* seafarers a greater animation prevailed. In groups with both seafarers and non-seafarers misunderstandings often happened. With some difficulties these groups have been able to come to a consensus decision. The seafarers did not directly take command of the groups but might have had an indirect command. Seldom was a clear group leader appointed. Normally, it is the person who possesses better knowledge in the subject that takes the lead in the group. It is not the person with better-spoken English or the captain who leads the group. Students emphasize that the result comes from joint efforts. Difficulties were shown in mixed seafarer and non-seafarer groups because the seafarers probably had very different opinions than the members with academic backgrounds. The technical language used by the seafarers and also their different way of pronouncing English words could explain some of the confusions. The academics are not used to such kind of talking.

6.3. *Case 3*

The following has been noted from a group exercise [17], where the students, grouped as ship owners, should agree on a fix for a time-charter engagement. Throughout negotiations, the most profitable bidding was the most successful group. Within the group the many bids had to be agreed upon.

This is a problem linked to a maritime shore activity. No distinct conclusion could be made by saying that seafarers more easily adapt to work in multicultural settings. Seafarers, like everybody else, apparently need education in intercultural understanding. Contrary to groups with only women or groups with no seafarers, the groups with a mixture of seafarers and landlubbers had more difficulties coming

to a consensus decision. The seafarers seldom took the command in these groups. Perhaps they realized that there are others who have greater competence and skill to lead a discussion. In this exercise the cooperation between senior shore staff shows that conflicts in group decision-makings are not a very big problem. The observations in the various groups indicate that the students show respect for each other. No harsh words were uttered and nobody raised their voice. Students seriously listened to ideas and honestly tried to come to a unanimous decision. They also realized that they can learn from each other. One of the issues, that could be addressed later, would be whether the reason for only minor disagreeable consequences were their generally higher intellectual level.

A major problem was that very seldom was an understandable sentence formulated. However, students were normally given time to talk without being interrupted. Often the sentence, or part of the sentence, had to be repeated. Another observation is that the values of words vary. These two observations have serious consequences in ship crises situations, in board-meetings where quick solutions and decisions have to be taken, or when assessing students. In a normal classroom obscure words are equal to dim thinking, and then it is interpreted as lack of knowledge. The teachers should therefore not judge students too fast.

7. Discussion

There is a growing need to exchange ideas between people; various ideas should act as fertilizer and not as a blockade. This behaviour of exchange appears to be different in cultures. Swedes, for example, are known for avoiding discussions with people of differing opinions. Ethnographers mean that the Swedes prefer to talk with people with similar views to their own [18].

The group members' positioning around the tables could have an important impact on the possibilities to convince during discussions. The decision quality depends on the possibilities to have your voice heard. It is known that persons sitting opposite each other talk more to each other than people sitting side by side. Students seating arrangements, in almost all cases in this research, were random and not controlled.

According to Arfwedson, individual relations increase faster than the number of individuals in the group [19]. It is important to realize this when deciding how big a group should be. It is crucial how fast the group can produce something with quality. Groups have a tendency to focus on shared information and neglect information that is unique to a single group member. Group members often do not consolidate the decision made by the group. Following on from this is that respect for others is one of the guiding principles of a multicultural society.

Kaner states that different cultural values make people disagree rather than agree [20]. This is manifested when the person comes from a culture that is a lot different from the rest in the group. In such circumstances intercultural cooperation has become a prime condition for the survival of mankind [21].

To survive in a multicultural world one does not need to think, feel and act in the same way in order to agree and co-operate [22]. Understand your own cultural values and the cultural values of others with whom one has to cooperate and the basic skill of survival will be achieved.

The involvement or active participation in groups has generally been steered more by the effort to be able to show that the group has been able to formulate a viable and technically correct answer to a given problem. Due to the task-oriented group

members in this research the involvement could be categorized as value-relevant. In this way the members are led to suppress their own dissent in the interests of group consensus.

Groups inhibit natural criticism [23], which came out well in this research. No inconsiderate words between the members in any groups could be noticed. This is a result of the statement but could also be a result of the fact that group participants of this category are not inclined to argue because of the nature of their work and their intellectual level. The consensus-seeking tendency had taken over and become more important. People from different cultures seem keen on coming to a consensus decision.

The ladies had a tendency to take a back-seat approach. They took belonging to an ethnic group that instruct members to have a uniform approach where the males decide the group's stance to a certain problem seriously. It is not good manners to have an opinion different from the group's view. At the same time, it could be noted that, if not immediately pounded by a chauvinist male, their commentaries, when they finally came out, were really listened to by all in the group. Usually, their statements did not come until the end of the discussions.

Social influence tends to be stronger in groups that discuss issues until participants agree, called consensus groups [24]. The discussions in the groups, in this research, were fairly quick and therefore did not contribute in creating any deep social bonds. According to Eisele [25] the level of involvement can be defined as: personal relevance, personal importance, future consequences and responsibility. The psychologist Janis says in his work *Groupthink* that a major challenge exists if there is a relation between the decision process and the decision content and if there are special risks when the decision is taken in a small group [26]. In a small group, group thinking can be too mechanical. Then again, it is important that the composition of the members in the group has been considered. As a logical consequence of this, an important power will be vested in the person recruiting staff members in the company because it will have consequences on how the decision process will be structured in the decision groups. A group has to have a minimum of collegiality in order to function. The group should also be properly mixed to give a better balance between ideas and interests. A MET institution has various committees. The members of these committees should not be *ad hoc* but thought about in order to get an optimal output of the group and the members should rotate between committees. Here our challenge will be manifested. If members come from different cultural societies it is a fact that some are more immune than others to group thinking. Although newcomers in the group usually adapt rather quickly, maybe too easily, it still gives reason to discuss the group composition. If all becomes equal, i.e. conforms, there will be an obstacle to development.

Intercultural education is a relatively new field. Education is needed in order to understand how people react in a group in general, and how it is done in multicultural and multilingual group settings. Future officers at sea should be given time in the curricula to discuss these phenomena. In addition they should be trained to be aware of their own stress reactions and the handling of these to manage decisions in a group and to make better group decisions. The theories in group decision-making under stress should be included in the education of all decision-makers.

Misunderstandings are a great threat to safety in the shipping industry. This is a hazard that should be taken up for further research. Accidents have met disproportional consequences because of language difficulties. More emphasis should be put

on pronunciation in English language courses. Sadly, there are no statistics to show if an accident is really caused by differences in cultural behaviour and/or lack of communication.

A clear order/repeat policy perhaps has got lost on the modern merchant bridge with the introduction of automation. 'Officer-like qualities' [27], as in the past, should not be labelled elitist behaviour, but rather be seen as an assurance of good seamanship and safety. Breaking cultural barriers in giving respect, realizing the benefits and teamwork in mixed groups would give flexibility, pleasure and profit. Leaders with strong characteristics are needed when working with people from many different cultures.

Some institutions have already realized the need to educate people working in a multicultural and multilingual mixture. The *Financial Times* writes 'MBA for Europe's managers' where it is reported that three European universities have made joint efforts on cross-culturalization and are convinced that MBA graduates need an advanced understanding of European business contexts, language skills and practical international experience [28]. The future European business leaders must understand Europe, both culturally and commercially, and must also be able to realize the needs of such knowledge. MET institutions should also focus on this. The industry needs cosmopolitan managers who can both negotiate and manage people from different cultures. Cross-cultural understanding is needed to avoid becoming stereotypes.

The *Ecole Nationales de la Marine Marchande* in Marseilles has taken a new innovative approach to MET [29]. The doors of the institution are now open for foreign students also. They have considered it high time to enhance its specializations in terms of maritime training at an international level. If they have not thought about it then it is high time also to give professors, lecturers and instructors a few lectures in cultural awareness.

The *Numast* newsletter explained that the UK Department of Trade and Industry is encouraging the dissemination of a partnership culture throughout the shipping industry [30]. The idea is to move away from traditional confrontational relationships to a new way of working together.

8. Conclusion

In short, this research has tried to formulate an answer to the two questions in the caption: (1) is mixed crewing an advantage or not and (2) do we understand each other in the shipping industry? This research finds that a mixed student body is not predicament free and that we generally have a problem communicating. Compared with the crew onboard a ship, the students at WMU, on average, have a higher intellectual level. This observation makes the problem less striking. However, it is still there. Their approach to cope with problems shows great patience and understanding. This could perhaps also be expected with the argument of them having a generally high knowledge. However, to escape from confrontations, in western society, is seen as a weakness.

A more serious problem is that a message sent is not the message received. We interpret the meaning of, and also the reasons for certain behaviour, in particular of someone from another culture, with too much emotion. In addition, students seem to have lost the skill of articulation. Rhetoric, not only in the meaning of being able to convince, is no longer a subject neither in the obligatory school system nor

in higher education. It is indeed a pity and should be part of any management education.

The results in the author's research are closer in harmony with the NMM research than in the SIRC research. The latter finds life onboard friction free and encouraging ("... can operate extremely successfully") [31]. This could be, but it should not be at the costs of safety. The National Maritime Polytechnic in 2002 researched *Mixed Nationality Crews: The Filipino Seafarers' Experience* [32]. A general conclusion of this investigation was that there are unresolved issues with mixed crews.

The researcher in the NMM research was an ethnographer. In the SIRC and the author's research the researchers are mainly ex-seafarers, though in the SIRC research others have contributed as well. Nevertheless, it is important that the researcher has a good pre-understanding of the people he/she is about to research. This statement becomes especially important if a phenomenographic method is being used. And this method is recommended in order to obtain good research validity.

The cure to the whole problem is to realize that we *all* need education in cultural awareness to be efficient in an industry getting more and more globalized.

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II

IAMU Journal

IAMU INTERNATIONAL ASSOCIATION OF MARITIME UNIVERSITIES

INTERNATIONAL MARITIME LEGISLATION AND MODEL COURSES

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ABSTRACT

The IMO model-courses are provided to help professors, lecturers, teachers and instructors to educate and train a future useful product from the MET institutions around the world. Though, there is additional knowledge to pass on to becoming officers of the watch (OOW's) than the minimum requirements according to lawmakers. The industry has its need, the students have their wishes, the Maritime Administration its goals, and the maritime education and training (MET) institutions their challenges. The viewpoints of both industry and students should be carefully taken into consideration when writing the curricula.

The model courses are subject to technology adaptation and new course curricula are written to accommodate new laws. A lot of work is also being put into the efforts to make the courses pedagogically correct. The question is: are these courses really used in the way IMO has intended? Are there any additional subjects that perhaps should be focused upon to make STCW 95 successful? Do the MET institutions have the funds to purchase the hardware and the software needed to conduct these courses? Many other questions come to mind. This paper, of course, will not have the answer to these questions and other questions related to the subject but will merely highlight a few problems in need of attention. MET institutions should have the foresight, be proactive and take initiatives to find cost benefit solutions for the users of their services. With this attitude STCW will be more successful. Governments must give their support to MET if it is a national desire to have a viable and efficient shipping industry.

A survey of MET institutions worldwide reveals widespread recognition of the model courses. Is further marketing needed? Is the EU MET harmonization initiative, for example, enough to make Academic Deans kick up the dust off the files on the shelves?

1. Introduction

Voices have been raised on the effectiveness and validity of the ISM Code. Is this the instrument that the industry is looking forward to seeing as the "safety-bible" in shipping? If this is not so, then we should hurry to invent something else, because something is apparently needed. The enforcement and vigilance that comes with the Code has and will straighten up the industry in a way that a technically substandard ship, sloppy ship onboard management, unqualified ship

management and un-skilful crew will have difficulties to operate and survive on the green seas. The last item, not less important, is the root to everything that has to do with safety and environment – the human being. What could be wrong is the mentality and attitude of crew but indeed also of the owners. The owners have a major influence in making the Code work.

The owners' and shippers' attitudes to safety can improve the situation. But shippers and owners need a working-tool for their interest in safety. The tool is again the human being and in this case it is the crew; ratings and officers. Skill and knowledge, of course, do not come from heaven. Education, thereon-good education, is required and needed. Where can one find high education standards? Perhaps, at national MET institutions that awoke from their noon napping with STCW 95. MET institutions are normally operated as government identities. With this follows a really good possibility of excellent performance. But perhaps self-tuition is better?

Governments have to have a pro-shipping attitude and issue a clear shipping policy that cannot be misunderstood, in order to be trustworthy with MET. Misunderstandings from the politicians have been legion in the past but, with the elimination of the sentence "to the satisfaction of the Maritime Administration" a more harmonised approach might be achieved. If this does not work the chances are great that the industry itself will take over the MET.

How do the MET institutions manage to pass on knowledge to have the students maintain a realistic and up to date safety standard? Is it old experienced ex-seafarers or new fresh seafarers that have thrown their anchor ashore and taken up teaching or is it the industry itself that has to carry the burden of training their future officers and ratings. Sperry Marine has opened a UK training centre at New Maiden in Surrey. Recently Lloyd's List wrote that Sperry has completed 200 courses in the last five years. At the same time the director promised that "...we are not trying to replace nautical schools" (Mayer, 2002). More industry suppliers will start education with their own specialists. The reason for this being that the equipment is too complicated for a MET teacher to manage. Today teachers have to manage too many subjects and at the cost of not always being capable to conduct all subject equally well. Principals need to save money because governments do not give them enough funds to keep a highly qualified staff. It is uplifting to read that it is an ex Master Mariner who will conduct the Sperry course and that it is the syllabus in model course 1.27 (ECDIS) that will be followed. But why not conduct the course at the premises of a MET institution? Officers need such training before setting foot on deck.

Propeller manufacturers conduct similar courses. It is, of course, in the industries' interest that their equipment is handled professionally and maintained according to instructions. The industry sees too many examples where crew have tried to repair and clean equipment not using the tools made for the repairing/cleaning. The crew needs to understand the importance of reading and following instructions. It is often not that easy.

The answer to the question how MET institutions manage to pass on knowledge comes clear from articles in the press and from recent researches (e.g. the EU METHAR study). Knowledge is mainly transferred:

1) By non-professional educators often using outdated training equipment, etc.

2) By people having no real shipping expertise, no pedagogic training and not knowing how to manage students.

Of course, there are no rules without exemptions. One should not generalize but this is very close to the truth in most MET institutions worldwide. It has also been realized by IMO. This must be one good reason why the IMO model-courses have been written–primarily to help the MET

institutions to pass on relevant knowledge to becoming OOW's using the best pedagogic material and the most updated information in teaching. The material in these courses encompasses the minimum knowledge required to understand and apply most recommended IMO resolutions.

2. IMO model courses

Effectively, the model-courses are meant to suggest and help professors, lecturers and instructors in their teaching. Normally teachers are inherently individualists. The ego is often built upon a strong belief in themselves. The courses have been written to cover the minimum competences in STCW 95. Therefore an independent authoritarian senior lecturer would never accept to be told how to do it in the classroom. Preferably the courses therefore should continue to be a helping tool and never be made mandatory.

For a long time the IMO recommendations (resolutions, codes etc.) have been subject to interpretation by the Maritime Administration in the ratifying countries. The ISM Code and the Revised STCW 78 (STCW 95) are good examples on how, more and more, we perhaps will see that the regulators tell us how to do and what to do. Specified instructions will more often be given to the servants set to ratify the instruments because we (read the industry) apparently are not capable of self-regulation. For this reason perhaps the model courses one day will be part of the convention. The author would suggest that Part B in the STCW 95, now a guideline, one day could be made mandatory (Horck, 1998). This of course if it is believed that regulations are the cure to minimize accidents at sea. In the revised IMDG Code one can note there are a lot more shalls (mandatory) than shoulds (recommended) but still some mays (optional). Regulators are taking the command. Another observation is that consideration has been given to training requirements with new tables recommending the training needs for shore personnel. This new training approach launched with the IMDG Code should be promulgated to other instruments as well. The specification of training need should more be formulated in codes, conventions etc. It is necessary in order to ensure that all concerned benefit from best practice principles when exercising the rules. If the regulators continue to add an appreciated requirement for training in new instruments from IMO the organisation should be obliged to make sure there are courses that the educators can consult in order to facilitate the implementation of such instruments. This work could be delegated to IMO's World Maritime University that has, as part of its mission, the endeavour to pass on knowledge and experience related to IMO recommendations. Any IAMU member could contribute and facilitate for teachers at MET institutions the best practice to forward rules and regulations.

Part B, in STCW 95, is a "mini model course" to guide both teachers and practitioners. The industry needs this kind of harmonised guide just to assure that the end-product from the MET institutions is of the same calibre wherever in the world the students have been educated. The industry dare not, anymore, take the chance to have ships detained because of the crew not knowing their job or not possessing the required skills.

Often the woeful state of the modern seafarer's behaviour at sea, too many times in year 2003, shows a fundamental lack of awareness. Though, people's knowledge is improving – but we are in 2003!!! The art of navigation, cargo handling and shiphandling appear to have a second priority in the art of transportation at sea. Where is the concern and seamanship of past generations of mariners? Well, it is realised that crew philandering between ships is a non-caring behaviour that does not belong in quality shipping. The STCW 95 Convention and the ISM Code could be factors to "force" owners not to allow such practises and to have owners not only be focused on profit.

Crew will have to be committed, feel the value for what they do and believe in what they do.

The consequence of the two instruments would be to refocus on basic training. Perhaps the educators should take a closer look at the model courses and realise that these courses could make them better and more updated performers in the classroom; Woodman (2002, October 8) "Modern seafarers are not aware of their lack of basic training". This is 2003! No wonder the industry has a bad reputation.

The model courses are also used for self-studies. Crew that need to update their knowledge or prepare for mandatory courses and knowledge have a good help from the model courses in warming up their studies.

2.1 The use of IMO model courses

Previous research has not told us how the courses are used and how much they have a direct impact on the teaching. A little research was done during summer/autumn 2002 to establish if the MET institutions have the courses, if the courses are used and what two courses that could be considered the most "popular". Apparently the courses are available in most institutions. The usage of courses varies. Some say that the courses are followed strictly and others say the courses are only an assisting tool. 13% of the sample1 clearly declare that they do not follow the model courses. With an indication in percentage of all answers the three most "popular" courses are:

1.20 Fire prevention and fire fighting 36%

7.01 Master and Chief Mate 29%

7.03 Officer in charge of a Navigational Watch 21%

To conduct model courses proper simulation and laboratory equipment etc. is needed. Where can the MET institutions get the funds to professionally run such courses – equipment is expensive? Answer: by being proactive and marketing mandatory courses to be conducted at the MET institutions. Owners will send their crew for training and the surplus of the course fee could be used to purchase teaching equipment.

To have the IMO model courses more employed these must be subject to regular update. If not, there is an underlying safety risk when there is a total reliance on the courses. Today, there is no systematic update of the courses. An exemption is the recently introduced course on the IMDG Code. If a promise could be given to update the courses every 2nd year perhaps the courses would be used more frequently. The IMDG Code will be subject to revision every 2nd year. At the end of 2002 it became known that IMO has asked IACS to update six IMO model courses. Because of new methods the old courses have become out of date. It includes a "comprehensive review of almost 4000 pages of text, slides, illustrations and diagrams" (Grey, 2002).

The courses could be an interesting approach to attain harmonisation of education worldwide. Still, there must be room for a high degree of flexibility on how various teaching subjects are passed on to the students. This issue should be 100% in the hands of professional educators and not, as in some cases, the National Maritime Administration.

Though it is sad to note that a number of Maritime Administrations have taken the view that the courses they approve must follow the IMO model courses. According to Lewarn (2002), the Norwegian Maritime Administration refused to recognize Australian GMDSS certificates because "the course was not long enough and was not aligned with the IMO model course". The real issue must be competence and not course length.

The harmonisation of maritime education worldwide is important. An observation of articles in Lloyd's List regarding the implementation work in the Philippines to meet STCW standards shows that seminars were prioritised on the following two model courses (Almazan, 2002, March 6):

3.12 Assessment, examination and certification of seafarers

6.09 Training course for instructors

and logically, seminars on the implementation of a standardized management quality assurance system.

Harmonisation of education is important but the assessment is even more important. IMO has issued a model course for both, and that is model course 3.12. If the MET institutions study and follow this course, perhaps, there would be a more uniform and fairer way to assure owners that the seafarers available for a specific work-position are properly qualified.

The IMO model courses are conceptually a good idea provided they are seen as a guide for teachers in order to build up and develop appropriate teaching and learning experiences. To quote the aim as formulated in one of the courses:

"…. It should provide a useful introduction for those with limited teaching experience. For those who have been teaching for some time, the course may introduce some new approaches or serve as a reminder of techniques that have been forgotten".

IMO, Model course 6.09.

Why do we really need the model courses? We shall repeat: To assist the teachers in producing better cargohandlers, shipshandlers, surveyors, engineers etc. etc.; all with a respectable effort to have secure and safe shipping and clean oceans.

But more knowledge does not solve the problems if fatigue is explained as the reason for the high frequency of errors and accidents in the industry. Human error has another factor that perhaps plays an even bigger role in explaining and being the reason for incidents and accidents; the lack of proper communication and the lack of cultural awareness.

Finally, it is a pity that the updated issues of some courses have been shortened. The compendium has been withdrawn. It provided a very useful part of the substantive input to the course. The exercises created an excellent support for the teacher.

3. Additional model courses to effectively shape ISM and STCW

A main goal for all teaching is to change a student's attitude. So it should also be in MET and apparently it is very urgent. The IMO model courses might be the practical solution for a more salubrious attitude.

Accidents reveal and studies show that the industry is not tackling complex work-situations correctly. Model courses could stop the negative trend and should therefore be written on:

1) How to collaborate, cooperate both onboard and ashore.

2) How to find expertise and ask the right questions.

3) Changing mentality to be more helpful and realize the benefits of assisting colleagues.

4) Learning how to work together in teamwork efforts.

(Hansen, 2002).

The culture of collaboration is fundamental in industrial management today. It has repeatedly been the theme in IMO World Maritime Day speeches. What has been done to promote cooperation since the Secretary General of IMO last had a speech on this subject?

Collaboration comprise communication. Do we know how to communicate? Can we make ourselves understood? A major factor to make the new safety culture effective is to foster open communication at all levels. Let me therefore deviate from the major subject of this paper and try to emphasise this previously neglected and now enhanced phenomenon.

There are many activities that have to be covered by legislation, but there are also many activities in one's work that is not covered by the legislators. If it is considered important that the legislators tell us what and how to do then it is high time that they also guide us on how to communicate and work in a multicultural environment. There are strong reasons for this issue to be thoroughly looked into. Casualty investigations can tell.

3.1 Communication and cultural awareness

No doubt, it has become more important to be able to correctly communicate and be quickly understood both ashore and onboard. This becomes even more important in emergency situations (crisis and crowd management). One should not forget the multicultural and multilingual presence in boardrooms of shipping companies and in lecture halls of MET institutions. The language challenge and the cultural challenge all of a sudden have become hot issues in many different maritime scenarios. This "problem" should be seen as a challenge to all of us. Within a year, researches have been presented on mixed crewing with its advantages and disadvantages. I find the results mixed and conclusions contradicting.

The Seafarers' International Research Centre (SIRC) has released a report "Transnational Seafarer Communities". The researchers have testimonies that there are many benefits with mixed crew: ..."when supported effectively, can operate extremely successfully" (Kahveci, 2001). A team with a Swedish ethnologist has made a voyage on a Wallenius PCC and has reported in "Isolde av Singapore" (du Rietz, 2001) on life onboard with a mixed crew. Generally they encountered doubts with a mixed crew. The Philippine National Polytechnic (Fairplay, 2002, June 6) has published a report "Mixed National Crews: The Filipino Seafarers' Experience". This report lists a few problems like: language, communication, work cultures, behaviour, racial stereotyping etc. Horck (2001) has made a study on how students at WMU formulate a consensus decision. It appears not to be friction free. For comparison it should be noted that the intellectual level of the sample in the latter study could be considered higher than in the other two studies. In summary, evidently there are different opinions on the effectiveness of exotic crewing and the cooperation between people of different backgrounds; language and culture.

Lloyd's List reports that new demands are required to ensure seafarers on foreign ships coming to US waters have to be more proficient in the English language. These demands have been put to the Congress. The problem is getting worse. The article also says that the emergence of mixed nationality bridge crews has added a new dimension to the problem (Glass, 1997). A language barrier has become a safety risk. Perhaps one should go back to procedures as in the 60's when the pilots in the Panama Canal brought with them their own helmsmen so as not to risk any gaps in the order line. The same condition ruled in the Kiel Canal where the German pilots had a native-speaking as helmsman.

Sydsvenska Dagbladet reported after the first fire accident in the tunnel between Sweden and Denmark that the direct contact between the rescue teams and the communication on radio should be avoided (Sundberg, 2002). It shows how difficult it is, also for two neighbouring countries, to understand each other. In this case, it was considered better if all possible procedures and events could be written and thought about in advance (by using checklists) in order to minimise misunderstandings in the wake of direct communication.

Sydsvenska Dagbladet (2002, 26 May) also reports that a ship went aground in the Sound because the Danish pilots gave draught information to a ship's Captain believing he was heading for the Great Belt. The Captain was actually heading for the Sound and therefore went aground just before the bridge. The above situations are typical examples of lack of communication.

Horck (2002) wrote the following, further to underline the need to act, on this issue:

One could ask oneself if the above really is a problem or if it is a self-made problem to find reasons and excuses for accidents and incidents at sea. Has the discussion become a cover-up for technology and other aids introduced onboard

ship-aids that have made the work situation on the bridge and in control rooms almost impossible to grasp for "normal" human beings. To change the already far-gone introduction of high technology innovations in shipping is probably more controversial and expensive than to blame the human being that is working in an ever-inhuman environment. Perhaps it would be wiser to attack the hardware (machines) instead of the software (human brain) in order to remedy the reason for accidents where the so-called human factor is to be blamed. Perhaps the explanation for many accidents at sea is to be found in the pure lack of communication and lack of understanding behaviourism. If this is so, then of course we must put an emphasis on this in MET. A better/new program should be introduced on: understanding people, modern leadership, English language and cultural differences.

A future problem is scarcity of nationals going to sea and this creates a possible negative impact of having to recruit foreigners to work in the head office of shipping companies. If it is realised that non-nationals occupy decision-making positions in a company, these decisions have to be taken in a multicultural environment. The challenge is already a fact with the increasing number of shipping alliances. Certain pooling constellations had to be broken because of the adverse impact of not being able to come to quick decisions and the psychological fact that many people have problems in accepting company protocols. Misunderstandings could be a serious risk in achieving a quality operation/management. This plays a vital role in achieving what is defined as quality shipping. We cannot have quality shipping without a quality crew that is able to work together and communicate without hindrance. In the past the alternatives for such shipping companies have been either to close their sheer shipping activities or, if financially strong, purchase (take-over) the other shipping company and keep the hegemony by building a new corporate culture. Pooling requires cultural compatibility between the members. An example of a broken pooling arrangement is the famous take-over that the Danish container giant Maersk Line did when buying another giant Sealand.

Intercultural education is a relatively new field. Education is needed both in order to understand how people react in a group in general and how it is done in multicultural and multilingual group-settings. Future officers at sea should be given time in the curricula to discuss these phenomena. In addition they should be trained to be aware of their own stress reactions and the handling of these to manage decisions in a group and to make better group decisions. To know the theories in group-decision-making under stress should be included in the education of all decision makers.

Misunderstandings are a great threat to safety in the shipping industry. This is a hazard that today should be considered with greater efforts. Too many seafarers do not master the English language. Accidents have happened, in proportional consequences, because of language difficulties. More emphasis should be put on pronunciation in the English language courses. Exercises on how to be distinct in pronunciation are evidently needed. Sadly, there are no statistics where we can see if an accident is really caused by cultural behaviour and/or lack of communication. It is not backwards to say that merchant mariners in general should take lessons from the navy on how to behave on the bridge. A clear order/repeat policy perhaps has got lost on the modern merchant bridge with the introduction of high tech instruments. The vocabulary has now been adopted with IMO's SMCP2. We still need verbal communication. Both IMO and ILO are shifting the emphasis onto people. Therefore communication should be underlined as well. Breaking cultural barriers in giving respect, realising the benefits and teamwork in mixed groups would give flexibility, pleasure and profit.

Some institutions have already realized the need to educate people working in a multicultural and multilingual mixture. In Financial Times Matthews

(2002) wrote on "MBA for Europe's managers" where it is reported that three European Universities have made joint efforts on crossculturalisation and are convinced that MBA-graduates need an advanced understanding of European business contexts, language skills and practical international experience. The future business leaders must understand Europe, both culturally and commercially, and must also be able to realise the needs of such knowledge. MET institutions should also aim at this. Many seafarers later might join the office of a shipping company and be involved in the business on a more academic and intercultural level than they have been during port visits and onboard. The industry needs cosmopolitan managers who can both negotiate and manage people from different cultures. Crosscultural understanding is needed to avoid getting stereotypes. The stereotypes that we see in others are usually wrong and are highly dangerous to good communication. To get this perception proper education is needed.

The Ecole Nationales de la Marine Marchande (ENMM) in Marseilles has taken a new, innovative approach to maritime training. New programmes to accommodate the industry and the legislators have been introduced. In addition, the doors are now open for foreign students also. They have considered it high time to enhance its specialisations in terms of maritime training at an international level. If they have not thought about it then it is high time also to give professors, lecturers and instructors a few lectures in cultural awareness.

The Telegraph (2002, June) reported that the UK Department of Trade and Industry (DTI) is encouraging the dissemination of a partnership culture throughout the shipping industry. The idea is to move "...away from traditional confrontational relationships to a new way of working together".

Key features in the ISM Code are: reporting and communication. Shipping companies'civil servants, with no seagoing background, might not understand the seafarers. Seafarers don't understand each other and civil servants don't understand each other because of a dim cultural curtain that separates them. There is a gap not only because of the bad English but also in the meaning of what is said. Because of cultural differences and lack of cultural awareness misunderstandings appear. Add to this fatigue, a situation when the natural identity in the human comes to appear without thinking about colleagues with a different social discourse. An objective of the Code is that an assurance of communication should be achieved and thereby misunderstandings reduced. The cure of further misunderstandings is definitely education in cultural awareness.

The model courses that take up this subject, to some extent, are: 1.21 (Personal safety and social responsibilities), 1.22 (Ship simulator and bridge teamwork), 1.29 (Proficiency in passenger safety, cargo safety, hull integrity, crisis management and human behaviour training on passenger and ro/ro passenger ships) and 5.04 (Human resource management).

In the model courses one can find a proposal of lecture hours in subjects as noted in Table 1:

Model course	Subject	Hours
1.21	Human relationships	2.00
1.21	Understand orders and be understood in relation to shipboard duties	3.00
1.29	Human behaviour and responses	1.00
1.29	Establish and maintain effective communication	0.75

Table 1. Lecture hours

Because of an earlier hierarchical leadership system, these issues were not much emphasised in the past. Therefore a model course should be written on cultural awareness and communication skills. The globalisation of the industry will demand this knowledge to be acknowledged by shore and sea staff.

3.2 Ports

Other areas covered by IMO are the ports, port approaches and anchorages. There is no model course on how one should perform in such areas. Seafarers, with good seamanship in the blood, know but lecturers with very little experience or no experience at all certainly need guidance. STCW should perhaps require MET lecturers to have certain sea time to keep their licence also as teachers. According to the METHAR study many Far East MET lecturers, contrary to many EU MET lecturers, are required to have a valid certificate of competency, COC. This approach to have up to date seafarers as lecturers requires the industry to be cooperative. And why should they not be because they are the users of the end-product of the MET institutions. It is in their interest to see and take part in what is happening behind the walls of the premises of education and training. And they should do it free of charge.

Most accidents happen in ports or in the vicinity of ports. The P&I Clubs pay enormous amounts to cover for accidents in ports. There are no model courses on port issues. There was one course on port logistics (5.04) but that was withdrawn from the list because it was not really an IMO issue. But certainly there are activities within a port's property that are connected to the sphere of IMO.

3.3 Inspections

INTERTANKO wants to have an IMO model course for better training of port state control inspectors. It is understandable, because there is a wide range of disharmony in the executions of PSC inspections. The industry wishes to have a harmonised approach (read standardised) in the vigilance of rules. With standardisation comes less subjective interpretation that perhaps is based on misconception of the situation.

Today, flag state inspections are covered with a range of courses:

3.02 Small craft

3.03 Machinery installations

3.04 Electrical Installations

3.05 Fire appliances and provisions

3.06 Life saving appliances and arrangements

3.08 Navigational aids and equipment

National surveyors normally learn their job the hard way i.e. following a more experienced surveyor in his work. IMO should develop model courses for post operational levels to a higher degree. Without proper "policing" of mandatory rules and regulations there is no reason in having such regulatory framework. The "police" in this argument should be the surveyors (flagstate and portstate). To learn the hard way is actually not cost effective. Some model courses (about 32%) cover surveyor's work and the rest are related to general education i.e. the STCW. Courses should be developed on how to, for example, check ships stability drawings and many other how to do activities being a surveyor's responsibility. Here there is a wide gap between what the legislators have produced and what IMO has produced in the form of model courses.

4. Conclusion

Without doubt, poverty is one serious reason for the many accidents that we have in the industry! I could even extend this statement and say that it does not matter how much we train as long as we do not give respect and the necessary attention to maritime safety also on a national level. This is then a serious matter for the politicians. It is a matter of assigning the necessary funds to MET and others involved in shipping. Assigning funds to develop model courses would be a constructive international contribution to safety. Media have a low profile in reporting and discussing the IMO model courses. Not much is written about

them. What is not talked about, be it good or bad, usually indicates that it is of no interest. Perhaps the interest is growing. The Netherlands has submitted a paper to IMO and it can be found in MSC 75/INF.12, "Role of the Human Element". In this document there are a number of points for thought. In this document some paragraphs are indicated with a "k" meaning the issue calls for action on the need to examine communication strategies. To this document one should add cultural awareness; it will be the third factor in the link: fatigue, communication and cultural awareness. All are key factors explaining many of today's accidents at sea.

Mediation is becoming more and more the way to solve disputes. Mediation is built upon conversations and therefore it is also important that people understand each other from a cultural viewpoint. The same comes at hand during negotiations between business partners and similar situations.

As long as the industry has the entire world as a manning market for transporting goods over the seas then a higher level of education harmonisation is needed. The owners must have an assurance that the end-products from the MET institutions have the knowledge and skill to stand a port state control. The model courses are a step towards harmonisation. If this cannot be achieved then the maritime industry should follow the example of the air industry where e.g. the OOW's, in most cases, are nationals of the airline.

We repair systems instead of changing peoples' attitudes. Courses are needed in cultural awareness and good communication. It is possibly more cost effective than many technical gadgets.

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III

Why A Qualitative Research Strategy? A discussion on research strategies, focusing on qualitative research; a challenge for the maritime cluster

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ABSTRACT
This paper discusses the qualitative versus quantitative strategies in research, emphasizing the qualitative strategies. With the increased importance in studying maritime human behaviour, in a research area historically dominated by quantitative strategies, a qualitative strategy will give additional and deeper knowledge relevant to every IAMU researcher. Qualitative strategies have been used since the mid 60s. What do they signify? Are they unbiased? It certainly cannot be just an ignorant interviewing of a population and its world that the researcher wishes to investigate. There is more to it. We must realize that human perception is highly selective. What people "see" is dependent on their interests, biases and backgrounds. Those who do observational research are expected to go beyond ordinary looking and do systematic "seeing". *Nota bene*, if the researcher lacks method-knowledge there is the risk of subjectivity. This paper introduces, to the MET world, a few research strategies to reasonably do away with subjectivity.

Both qualitative and quantitative data can be collected in the same study. We have to realize that different perspectives give different types of insight. Qualitative strategies are preferably used in social science.

In walking together and communicating with the research object the researcher attains knowledge that s/he otherwise would not be able to discover. Truth is created by dialogue and by observing people's reactions to specific occurrences. Through language humans handle situations, surroundings, themselves, relationships, etc. Classroom teaching articulates ways of using language in social relations. Research strategies sometimes classified as "loose" can certainly be justified.

1. Introduction

Social science research is vitally important for the welfare, safety and security of the one million people who work at sea. In an article in the Numast Journal May 2004 the Nippon Foundation of Japan is launching a fellowship grants program on human related aspects in shipping in partnership with the SIRC in Cardiff. This contribution indicates the need for research on the human factor in shipping. The call for applying appropriate strategies naturally follows.

The type of research carried out in shipping activities usually builds its validity on quantitative strategies. With increased interest in research on phenomena where human beings have a focal role these strategies perhaps do not justify means, nor meet expected objectives. Numbers, by means of human figured formulas dealt with in computers, cannot be the only tool to justify a certain statement according to an assured hypothesis. Already, numbers and formulas

have their origin not only in natural science but also from social science, realizing that person/s with specific knowledge have worked with it.

Discussions in this paper are mainly drawn and inspired by the following four books:

1) Steinar Kvale (1997): *Den kvalitative forskningsintervjun*
2) Marianne Winther Jörgensen & Louise Phillips (2000): *Diskursanalys som teori och metod*
3) Michael Quinn Patton (1990): *Qualitative evaluation and research strategies* and
4) Norman Fairclough (2003): *Analysing Discourse, textual analysis for social research*

There are two strategies within the theory of research methodology: Quantitative investigations and qualitative investigations. Quantitative investigations are built on a positivistic research theory and the qualitative on hermeneutics. Both these theories follow established science theories (almost similar to knowledge theories) where:

1) Theories and not conceptions of belief are discussed
2) The truth (perhaps a theory is truthful when it correctly describes and corresponds to the world) is discussed
3) Scientific theories must be supported
4) A scientific theory must be used
5) A general consideration of scientific rationality and development of science.

A quantitative research strategy is often a) associated with a deductive approach i.e. it begins with a theory and tests to show evidence to a provided pre-set hypothesis, b) usually linked to the notion of science as objective truth or fact and c) the strategy usually begins with pre-specialized objectives focused on testing preconceived outcomes. The opposite approach, the qualitative research strategy, is often a) associated with a inductive approach i.e. observations are made usually in order to develop a new hypothesis, b) often identified with the view that science is lived experience hence subjectively determined and c) begins with open-ended observations and analysis looking for explanations to *how* and *why* questions.

Natural sciences try to find explanations to reasons for certain phenomena whilst social sciences try to understand the meaning of certain phenomena from its context. And the quality (the success) of a strategy is determined by its ability to explain new data. *Strategy*, as recommended by Hartman, is a word that in this paper will be used to cover and describe the array of possibilities and methods that exist to conduct a qualitative research.

In maritime research, to the author's knowledge, so far no researcher has stated *what qualitative strategy* that has been used. This paper will show that there are valid and reliable research strategies without a hypothesis to be tested.

2. Quantitative research strategies

Quantitative research is defined as the numerical representation and manipulation of observations for the purpose of describing and explaining a phenomenon that those observations reflect. Quantitative research is often based on statements like: anything that exists does exist in a certain quantity and can be measured. To quote Lord Kelvin "When you cannot measure, your knowledge is meagre and unsatisfactory".

A quantitative approach makes it possible to measure reactions of many people but to a limited number of questions. Still, this facilitates comparison and statistical regression of data. It is, however, important that the instrument used measure what it is supposed to measure. This can be done by adhering to prescribed procedures and by following a set standard for the instruments used (test items, survey questions etc.). Data is usually easily aggregated for analysis and should be systematic and standardised. Findings are usually not difficult to present.

The concept is to separate facts from values

and science from politics. The aim is often to foresee_and control people's behaviour by producing scientific, objective, quantifiable and unbiased facts that can be reproduced. The latter is very important in order for other researchers to build on a previous research and for decision makers to use the findings for their decisions.

Questions usually necessitate a quantifiable yes or no and the questions have to be standardized. Quantitative research, long held to be the only form of research that was statistically valid and reliable, starts by the researcher formulating a hypothesis that must be tested. Hartman (2004) says that it is irrelevant how the hypothesis has been found because it is more important that it can be given necessary scientific support. This is one of the reasons why quantitative strategies are used now in conjunction with qualitative research strategies, the latter in studies that cannot be adequately described, measured or fully interpreted.

Observations and enquiries can be part of the study. Observations become independent of the interviewee's memory and willingness, but it is an expensive and time-consuming strategy. The analysis of all types of data has to be statistically calculated. If the hypothesis can be supported it also has to pass a significant level that normally is set to 5%.

For any type of observation it is necessary to have a scale of measurement. But how does one measure the level of people's depression, physical health, psychological condition, intelligence or e.g. the force of being convinced? Without being able to measure no investigations can be made unless we find another strategy. A qualitative approach might be the solution.

3. Qualitative research strategies

If one wishes to know how people see their world and their lives the best way is to ask them. The reason for this being that the world and self has a *meaning* to each of us.

By using a qualitative research strategy the researcher tries to understand the world from the interviewee's point of view. In this way knowledge is built through an exchange of views between two persons. It is defined as a non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships. The whole person has to be investigated because our values of life cannot be fragmented.

A qualitative strategy produces detailed information usually of a smaller group of people. This increases the understanding of that particular group but, of course, reduces the possibility to generalise. The researcher in himself/herself is the instrument. Therefore, the result depends a lot on the researcher's skill and diligence. Usually, collected data are longer in presentation, more detailed and the content is variable. Diligence is required because data is neither standardised nor systematic. "*Open-ended* responses on questionnaires represent the most elementary form of qualitative data" (Patton 1990, p.24, author's italics) but it requires skill to interpret.

To explain system behaviour it is necessary to apply synthetic thinking. This is different from doing an analysis. A SWOT analysis (quantitative) answers many questions but, as well, it should be important to find the interdependency (qualitative) between its parts. Qualitative strategies are appropriate when phenomena under study are complex, social in nature, and do not lend themselves to quantification. Qualitative strategies can contribute to practical problem solving, decision-making, action research, policy analysis and organisational development.

The idea of introducing qualitative research was also to make research and science less dramatised. The point is to put forward the genuine knowledge interest of the researcher and the skill of interpreting (reading between the lines) in science. Any hypotheses, to be proven or rejected, are not necessary. Instead, the starting point becomes loosely formulated

questions. The door is open for surprises. This is a strategy with an opposite approach to working with e.g. questionnaires. On the road to the truth the researcher formulates findings *after* his work in the field. It is important that the researcher has few pre-stated answers to his area of research and instead keeps open questions like: "What does it mean to...?" or "What is happening ..."? etc.

Grounded Theory emphasises the importance of creating something new. Therefore, theoretical creativity is needed. The spoken and written language should be mastered at the same time knowing that it sets borders to our possibilities of comprehending the world. If one does not have words to describe a certain phenomenon one does not see it. The world is organised and interpreted by the use of language. It is not possible to discard either our mother tongue or our cultural inheritance. The researcher has to be prepared to pose questions on what is seen and on what conditions this seeing is based upon. In this way the research becomes exempted from fact contaminations.

What we do becomes less important than *how* we do it. The process is the main point. "Arguments are thus primary in social science and not proof" (Kvale 1989, p.121).

Börjesson (2003) states that the research expectation is to find some correlation between words and things; coordination between what has been spoken and what is. A methodological problem appears when interviewed people say something but do it in a different way; there is a gap between words and deeds.

It is the combination of personal experience and intensity that yields an understanding of a phenomenon. In a researcher's report it is important for the reader to know the researcher's experiences and knowledge in the research subject. A question could be raised: How can a researcher know and be able to motivate that his/her research is "better" than other researchers? The answer is that s/he cannot; this is why the researcher's pre comprehension is important in order for the reader to judge validity in the researcher's arguments. In qualitative research the researcher becomes a tool to produce results. To study others is the same as studying ourselves. One cannot talk about the world without having an impact on the world. Therefore, it is essential that the researcher is vigilant to avoid bias. The question is not what material best represents reality because reality is objects made by humans. It would be smarter to study how our world is being formed and use empirical material to suit our own purposes.

The object for studies is something that has to be anchored at its cultural context, the phenomenon needs to be contextualized rather than be given a general explanation. Therefore, a starting-point becomes to realize that discourses are speaking discipline and a logic that govern the limits of what is culturally and socially accepted as: truth, trustworthy, common sense, good and bad etc. These limits of discourse show what is not possible to say in a certain context (Börjesson 2003).

The choice of research strategy influences the way in which the researcher collects data. Specific research strategies also imply different skills, assumptions and research practices. The researcher must believe in the theories of the strategy chosen - a very important statement.

The researcher has a number of strategies to choose between. Sometimes only a fine-tuning separates them. The strategies discussed in this paper are:

1) Phenomenology
3) Discourse analysis
2) Phenomenography
4) Action research and Case study

The discourse analysis strategy will be

emphasised because it appears to be a method widely and more and more practised.

How does one practically get on with a qualitative research? Nowadays a lot has been written but to quote Jonathan Potter: "study how others have done it by reading their research" (Potter pers. comm. 2004).

The following provides a brief insight to some of the above strategies. Each strategy has a key person or "originator" and this has been indicated by the expression "here represented by...".

3.1 Phenomenology

(here represented by Husserl)
Mr Edmund Husserl (1859-1938) was a German philosopher.

Phenomenology is perhaps the most significant philosophical movement in the 20th century. The word has become synonymous with qualitative research and sometimes viewed as a paradigm, perspective and sometimes as a strategy.

A phenomenological perspective follows a concentration on the value of life, a unique openness to the experiences of the interviewee, a priority to exact information given and an attempt to find static meanings in the information. Patton (1990, p.69) says that the strategy (author's definition) focuses on the question: "What is the structure and essence of experience of this phenomenon for these people; or how is it that they experience what they experience"?

Phenomenologists tend to conduct research in a style that could be described in the below abbreviated approach-list:

1) Oppose the acceptance of unobservable matters
2) Oppose naturalism
3) Justify cognition
4) Believe that not only objects but also a conscious life itself can be made evident and thus known
5) Inquiries ought to focus upon objects as they are encountered
6) Recognize the role of description by means of causes, purposes or grounds

3.2 Phenomenography

(here represented by Marton)
Mr Ference Marton is a professor of Pedagogy at Gothenburg University.

This empirical strategy describes how people experience, conceptualise, understand, perceive and apprehend various phenomena. The different ways in which people see a phenomenon is shown in the words they use to describe it. This we can state because it is impossible to deal with an object without in some way experiencing or conceptualising it. The strategy works extremely well in confirming practical problem solving and decision-making (Patton 1990).

It has now been more and more realized that the conceptualization of distinctively different ways in which people understand various phenomena is of great interest in itself. The principle of this strategy is to identify logically interrelated ways in which a situation is experienced or understood. The different ways that all this depends on is our way of describing them and is independent of the differences between experience, perception, apprehension, understanding, conceptualization etc. What happens during a conversation is important to understand. Besides the wording it is important to observe and interpret how humans act. Psychologists, doctors, sociologists and other scientists do the same in their work. What a person answers, and how s/he answers has a meaning for the total attitude of life, feelings and acts.

The object is human experience. The aim is to find the variation that defines a phenomenon. As expressed by Marton (1986, p.32): "What are the critical aspects of ways of experiencing the world that make people able to handle it in more or less efficient ways"? The strategy was developed from empirical studies of learning in higher education. This might be the most powerful way of finding out how

the development of knowledge and skills within these domains can be facilitated. It is tantamount to characterize the collective mind encompassing the different ways in which people make sense of the world. He states that if we are interested in how people think about e.g. school success the answer cannot be derived either from what we know about general properties of the human mind or from knowledge about the school system itself. Neither combination of these two parameters will give us the required insight. Researchers have to find another way. The natural choice is phenomenography.

3.3 Discourse analysis

The following scholars provide the base for the most well-known social construction strategies. There are many philosophers/researchers/scholars etc. that have similar implications. The strategies below are known to be the leaders in the field:

1) Potter & Wetherell: "Discoursive Psychology" (DP)
2) Fairclough: "Critical Discourse Analysis" (CDA)
3) Laclau & Mouffe «Discourse Theory» (DT)
4) Derrida: "Deconstruction" (D)

The reason for mentioning these different strategies is to get an understanding that the view of the world has many faces and the researcher has to make up his mind on the preconditions for his/her belief in relation to his/her research objective and then choose a strategy that suites both criteria. Different discourse strategies use different discourse conceptions. Any of the above discourse strategies has an interest in analyzing how the structure in the form of discourses is constituted (made up) and altered depending on the context.

In the above strategies it is realized that our understanding of world-reality always comes through language. Language is a "machine" that constitutes the social world. When we have a change in discourse it manifests a change in our social world.

In constructive research the belief is that all that which is being studied is constructed. With a discursive analysing strategy the question being posed is *how* something is constructed, in what *context*, within what *framework* and with what *consequences* for the human being. According to Winther Jörgensen (2000) researchers repeatedly have to ask themselves the following questions:

1) How extensive is the discourse – who has a relation and who presides over this discourse?
2) From where does this discourse take place – what type of people carry the discourse forward (interest)?
3) In what manner does the discourse exist and for whom – methodology (collective or individualistic)?
4) When does it take place – risks for anachronism?
5) Does it have any competitors – why is this discourse dominating, or is it?
6) Why do discourses change – with time, controversies, competitive ways of thinking?

A researcher's report should be comprehensive in order to give the reader a possibility to judge the researchers interpretations. The report must be transparent. The report should contain examples from the empirical material and clearly show how the researcher has moved from discoursive data to conclusions.

The following should illustrate the major strategies (theoretical perspectives) in a little more detail.

3.3.1 Discoursive psychology – DP

(here represented by Potter & Wetherell).
Mr Jonathan Potter is a professor of Discourse Analysis at the Department of Social Sciences at Loughborough University and Ms Margaret Wetherell is a professor of Psychology at the Open University.

This strategy states that the interest is in investigating how people strategically use

a discourse to present themselves and the world in an (often) egoistical social interaction. To study the social consequences that such behaviour might have is fundamental in this strategy. This strategy wishes to investigate relationships between individuals and between groups to find out the meaning, the consequences and the actions taken in such relations. The actual language used in such constellations therefore becomes very important. "The study of language is particularly vital to social psychology because it simply is the most basic and pervasive form of interaction between people" (Potter 1998, p.9).

DP rejects the cognitive effort to explain attitudes. Instead it is social activities that make us act as we do. An individual's attitude is not seen as stable mental dispositions, but seen as products of social interaction. When using questionnaires it is taken for granted that people's attitudes are stable mental dispositions. Small differences in the formulations of the questions give a big difference in answers. Attitudes are not stable. Potter defends the strategy saying that in DP the variations and contradictions are considered in answers (Winther Jörgensen 2000, author's translation).

To speak is the same as constructing an identity. Humans have several flexible identities according to researchers using DP. Identities are connected, incomplete and unstable. The identity becomes visible in particular events.

Certain expressions can be suppressed in certain social contexts. Discourse analysis can investigate the importance of language in processes of suppression. The awareness that certain contexts are put under taboo will make the person refuse certain discourses and this has ideological consequences because certain ideas of the world will be excluded. It is also possible to analyse why people are silent in certain discourses. The researcher analyses peoples' conversations as an expression of a world that the participants create themselves. Speech is action oriented and therefore varies with the social context.

This strategy differs from other strategies by being interested in how meanings are constituted in discourses that people use as a resource to talk about the world with a specific opinion. The researcher should focus on *how* people in discourses create their constructions of the world and form groups and identities.

Like all qualitative strategies DP rejects the positivistic epistemological strategy for collecting material (a structured strategy where the social interaction between the interviewer and the informer is minimised). Epistemological strategies cannot accept, for reliability reasons, diffuse formulations, leading questions or questions that are set together. Even wrong answers can be rejected with the motivation that the question was not measuring what it should measure. On the other hand, in DP the interview is considered to be a way to survey how people attribute importance to various phenomena in a social context.

One has to choose a transcribing system that makes it possible to analyze the interview. First thing, in the process, is to read the transcribed text and identify themes being put in categories. This is done repeatedly until the researcher has fully understood what categories best describe the text. It is interesting to search for the pronoun that has been used e.g. a change from "I" to "we" indicates a change of discourse. The coding is usually standardised and done by two researchers in order to sustain reliability.

3.3.2 Critical Discourse Analysis – CDA

(here represented by Fairclough).
Norman Fairclough is a professor of Language in Social Life at Lancaster University.

This theory states that it is discourse that creates the social world. Fairclough's theories focus on investigations of changes. It means that all discourses are built on historically

established definitions. It is the variety in the language we use that changes the discourse and with this also the cultural and social world.

Foucault is very much associated with discourse. He focuses on the relation between power and knowledge. His strategy of discourse analysis will help to find out what is the truth. This sets limits for what is conceivable. Who is allowed to speak and upon what grounds does such legitimacy rest?

There are five common criteria for CDA. Fairclough (Winther Jörgensen 2000, author's translation) explains them:

1) Discoursive practises are an important way of constituting the social world, including social relations and identities.
2) In a CDA strategy both language and discourse are seen as types of actions because discursive practises have an impact from forces in society.
3) CDA helps to create and reproduce relations of power-groupings between social groups. This is the reason for establishing groups of any kind.
4) CDA is not to be considered as politically neutral. Contrary, it makes an effort to be a factor in social change. In order to do that people have to be more aware of how language is dealt with, in particular to achieve political or social power.

The discourse forms an important role in social practices; it reproduces and transforms knowledge, identities, and social relations including power relations and at the same time is itself formed by other social practices and structures. Discourses contribute in constructing: social identities, social relations and systems of knowledge and meaning.

In cultural studies as well as in communication studies it is realised that *meaning* is partly created in the process of interpreting texts. A specific text has several potentials of meanings and these connotations might well be contradicting each other. Therefore, all texts are open to analysis. People's social relations and identities are not based on fixed social positions but rather created using negotiations in daily interactions. CDA is not just another form of academic analysis. Part of the task is to spread the awareness of language as a factor of domination.

3.3.3 Discourse Theory – DT

(here represented by Laclau & Mouffe)

Mr Ernesto Laclau is a professor in Political Theory at the University of Essex and Ms Chantal Mouffe is a senior

Research Fellow at the Centre for the Study of Democracy at the University of Westminster.

This theory states that the social world never can be fixed because any language fundamentally is unstable by nature. A certain discourse is constantly subject to reconstruction in contact with other discourses because a discourse can never be seen in isolation.

Power is what brings the social world to existence and that makes the world develop. It is power that carries our knowledge, our identities and relations to others as individuals or as group members forward. It is in discovering what social possibilities that have been excluded that one can discover social consequences for the individual. The subject identifies itself as an individual by comparing itself to something outside itself. These outside identities form the foundation of an identity but can also create a feeling of alienation. The complete identity is something one imagines; it is a needed horizon, in the creation of the ego and one's social world. The discourse forms a special protocol for actions of human beings; a protocol that is very binding telling what one pretends to be i.e. your identity.

All people do not have access to the same subject position. For example, there are limits on what a patient can say in front of the doctor to be trustworthy and believed. Therefore, one of the tasks in DT is to map how people

are categorized in groups and how this classification has an impact on their way to act i.e. to say and do something. According to Jonathan Potter (Potter pers. comm. 2004) "this strategy is on the opposite side of the hill compared to DP".

3.3.4 Deconstruction

(here represented by Derrida)

Mr Jacques Derrida is a French philosopher and professor of Strategy. Today he directs the École des Hautes Études en Science Sociales in Paris.

Deconstruction is a philosophical strategy directed towards the (re)reading of philosophical writings. Derrida suggests that there is nothing beyond text i.e. the strategy is partly based on the fact that the development of the world is seen as a complex historical and cultural process rooted in the relations of texts. Human knowledge is not as controllable or as cogent as Western thinking would believe. Language operates in an understated way and often is contradictory. Therefore, it has a tendency always to elude us.

Derrida contends that the traditional or metaphysical way of reading makes a number of false assumptions about the nature of texts. A traditional reader believes that language is capable of expressing ideas without changing them. The author of a text is the source of its meaning. Derrida's deconstructive style of reading subverts these assumptions and challenges the idea that a text has an unchanging, unified meaning. Western culture has tended to assume that speech is a clear and direct way to communicate. Drawing on psychoanalysis and linguistics, Derrida questions this assumption. As a result, the author's intentions cannot be unconditionally accepted. This multiplies the number of legitimate interpretations of a text.

By deconstructing the works of previous scholars, Derrida attempts to show that language is constantly shifting.

3.4 Action research and Case study

Action research is a process through which practitioners study their own practice to solve their personal practical problems. Teacher action research, for instance, means daily practical problems experienced by teachers. It does not refer to theoretical problems defined by pure researchers within a discipline of knowledge. It is characterized by repeated problem identification, systematic data collection, reflection, analysis and, finally problem redefinition. The approach is built on collaborative observation and very similar to case study strategy.

In a case study the belief is that the goal of a study establishes the parameters. The objective must be met and if so there is no doubt as to validity and reliability. A case study can well satisfy the methodological rigor of: describing, understanding and explaining. The player's views are incorporated in the study.

This strategy is criticised because a single case renders it weak in providing a generalizing conclusion. Case studies are not representative of entire populations, nor do they claim to be. The case study researcher should take care not to generalize beyond cases similar to the one(s) studied. In statistical analysis one is also generalizing to a population based on a sample, which is representative of that population only. With a large sample generalizations can be made.

4. Discussion

In any research, the researcher should consider the following general questions:

1) Who will use the findings?
2) What kind of information is needed?
3) What is the purpose of the evaluation?
4) When is the information needed?
5) What resources are available to conduct the research and to evaluate the findings?

Having obtained an answer to the above questions, the researcher should ask:

6) What strategies are appropriate?

Item 6) has become the reason for writing this paper to awaken maritime researchers to shun subjectivity. In the maritime field and particularly in researches conducted on the human factor there is an evident lack of item 6): information on the strategy that has been used. When qualitative research methods are used this becomes very important for the reader in order to judge a papers reliability etc. Equally important is telling the reader the researcher's pre comprehension; what reason gives him or her right to speak.

The latest major study on e.g. crew societies is the SIRC study "*Transnational Seafarers Communities*" where the method is described as "Tape-recorded, depth interviews used extensively and transcribed verbatim. They were translated as necessary and organised into thematic files for collation and analysis" (Kavechi, 2001, p.2). Fine, but the author assumes that a professional reader expect more details on actually *how* these transcriptions were analysed.

Quantitative and qualitative constitute alternative strategies but are not mutually exclusive provided there is logic in the reasoning. Different strategies are appropriate for different situations. Patton (1990, p.39) states, "A paradigm of choices rejects methodological orthodoxy in favour of methodological appropriateness ... for judging methodological quality". A qualitative strategy, in isolation, is indeed relevant as long as the objectives are met.

According to the author, discourse is an encircled and analysed *system of conversation* in line with some type of perspective. It is all about what we look for in life; on what questions we put forward and the strategy we use to answer the great questions in life. The efforts to find interpreting possibilities are an important ambition in itself. The researcher can dramatise his study and analyse the result. The researcher's "story" of the world will give a new picture of the world, or an old story that has been dramatised in a new way.

To understand the world does not necessarily mean that you tell how the world really is. The issue is to understand what conditions apply to understand something that can be understood in different ways. To *reflex* is the key and the goal to understand the discourses that are studied. "Knowing who you are in our society is in part knowing that you are part of a tradition in which knowing who you are is important and which is committed to this quest", (Gouldner, quotation from Börjesson 2003, p.187).

An individual can have many identities. Critics then argue: How can it be possible to have an opinion on a group with a mixture of identities? Critics also mean that there is room for too many subjective interpretations; there is no system to separate between good

Type of concept	Strategy	
	Quantitative (positivistic)	**Qualitative (hermeneutic)**
Reasoning	Deduction	Induction
	Objectivity	Subjectivity
	Causation	Meaning
Question	Pre specified	Open-ended
	Outcome ended	Process oriented
Analysis	Numerical estimation	Narrative description
	Statistical inference	Constant comparison

Table modified from A.Casebeer and M.Verhoef (1997) *Combining Qualitative and Quantitative Research Methods*

Table 1. Opposing strategies

and bad interpretations and valid and invalid conclusions. Quantitative researchers always give the critique that a qualitative strategy is a lot less stringent and therefore less valid in its conclusions. As an answer to such skeptics Winther Jörgensen (2000, p.116, author's translation) states, as one argument, that ten interviews can give equally good information as one hundred answers on a questionnaire.

Statistical data provide a succinct and parsimonious summary of major patterns and are easily aggregated for analysis, while qualitative research such as case studies provide depth, detail and individual meaning.

Table 1 illustrates the differences between the two opposing strategies. The concepts are fundamental in any research.

The analyser's power for explanation, including the capability to forward new explanations, shows validity. The problem is not to add facts but to arrange facts making them understandable in their context and then better understood.

5. Conclusion

The *rules* of research strategies are seen as a guarantee that personal or cultural preferences do not govern the research result. Quantitative variables can be quantified with validity, reliability, and credibility. On the other hand, in qualitative research the validity of a statement depends a lot on who is presenting a specific statement (a privileged speaker). For example, as in Figure 1, the classroom is a platform (formation) for many discourses. The two identities, culture and communication, are examples of discourses in a mixed ethnic classroom.

The researcher's task is to make clear how the two discourses form an opinion on the world in the classroom and what social and learning consequences it might have. The activities in the discourses create boundaries on what is false and what is truth. Some become more relevant than others (perhaps even unthinkable). In this way the discourses constitute a social process. The world in the classroom also depends on what has not been said and on discourses outside the room. Together all will form some consequences that could be of interest to analyse. Perhaps, a classroom analysis will show that it is human *power* that creates the social environment because power is often linked to knowledge. Really, who has the power in the classroom? Perhaps it is someone outside the room.

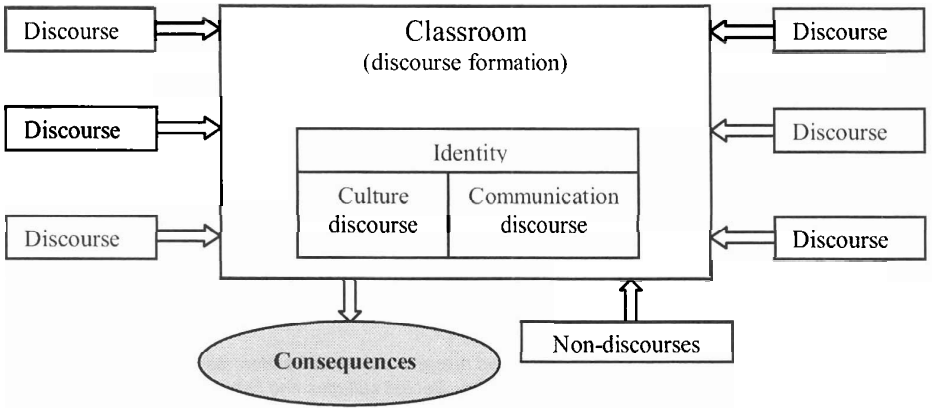

Figure 1. Classroom discourses

To give an example on how a qualitative research, according to one of the above strategies, could be another challenge.

> Being unable to recognise the difference between the spring blossom and the summer fruit, the scholar never realized that he had not experienced what he was looking for
>
> From Halcolm's Evaluation Parables

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BIOGRAPHY

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Captain Jan Horck has a Master Mariner examination from the Malmö Maritime Academy, 1970. He also has an "Extra Master" (Navigationslärar examen) from the University of Stockholm, 1979. From the University of Lund and the University of Malmö he has obtained academic points in mathematics, astronomy and pedagogy. In 2003 he obtained an MSc in Education at the Malmö University.

Between 1965 and 1982 he served onboard ships, of the Broström Shipping Company, in different positions. In 1980 he enrolled at the Maritime Academy in Malmö (University of Lund) as Associate Professor. In 1982 he took part in the pre-planning of World Maritime University (WMU), and in 1983 he was contracted with WMU. Presently he is a Lecturer at WMU.

His international experience includes conducting and lecturing at IMO/SIDA international courses on survey MARPOL Annex II and I and presenting papers at inter alia BIMCO, IAMU and IMLA seminars. He is also a visiting lecturer at IMO's International Maritime Academy (IMO/IMA) in Trieste, Italy and the TUW Academy Middle East in Abu Dhabi, UAE.

Besides lecturing at WMU he has been, and is, engaged in research projects like the EU project on Harmonization of European MET systems (METHAR), EU Study Project on the Maritime Education and Training Systems of China, India, Indonesia and the Philippines (CIIPMET), Maritime Training in Malaysia and currently in the EU project on Information exchange and impact assessment for enhanced environmental-conscious operations in European ports and terminals (ECOPORTS).

IV

Extracts from conversations representing a social constructionist application on research

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Abstract

With practical examples from the author's conversations with an international student body the aim of this paper is to illustrate a qualitative analysis used in the social construction of reality. Constructionists focus on the meaning humans create in our world; how we *understand* it. Sometimes it is of interest to understand people's world and the meanings they put into it. Constructionists have to take words seriously because words categorize the concept of meaning.

The examples aim to give additional understanding of the challenges faced by students and teachers studying and working in an ethnic mix. The analysis does not prove anything but merely problematises phenomena in multicultural classrooms and shows the need for inductive research strategies.

The choice of research strategy is very personal. A constructivist approach is valid as long as the chosen method/strategy can be explained and justified.
Keywords: social construction, conversation analyses, multiculturalism, classroom context, ethnicity, postmodernism, transcription and excerpt.

1 Introduction

This is the fourth and last paper in a series of presentations aimed at illustrating how qualitative/hermeneutic/inductive research strategies/methods require clear systematic approaches and therefore cannot be regarded as ad hoc processes (a common argument from deductive researchers). Three examples of post-modern thinking are presented; the aim is to demonstrate a social construction research strategy; an exceptional alternative to find the meaning/consequence/impact of what people say based on experiences in their respective worlds.

Fact and identity construction is very important to understand the worlds of others. With this comes the skill to interpret words people use in an utterance. Interpretation of talk is fundamental in order to get the true meaning of

utterances. Words function as building-stones for the categorization of both the phenomena and people we encounter; the basis for stereotyping.

2 Postmodernism

Potter [1, p.88] says that "... any contemporary discussion of ... fact construction must address the debates in postmodernism". Potter also argues, "Any definition of postmodernism is likely to provoke controversy ...", (ibid.). In short, the significance in postmodernism is focused on how things take place instead of what is perceived. Post-modern researchers try to enlighten the world on what could be described as ways in which people make sense of their social world (ethno-methodology). Postmodernism is involved in the way descriptions and arguments are produced. It also means that any descriptive language cannot be understood by only considering the words spoken, Potter [1]. "You have to understand the underlying system that gives the words their full sense and this system is only realized through the whole set of possible utterances ... ", Potter [1, p.70]. The underlying word indicates that there has been anticipation before we talk about it. This makes the post-modern society a world without originals.

People are different in experiences and perception. Fascinatingly, it is through external sources that most humans build an opinion of their world; less of experiencing. When analysing text, one has to take this into consideration. Our world is complex and sometimes also confusing. The world is mysterious. Therefore we have to ask in order to widen our knowledge.

It has become legitimate to express oneself openly. In a deregulated society, in a state of decomposition, non-authoritarian students *critically* listen to their teachers. This behaviour is encouraged in a post-modern (western) world and leads to self-assurance, predominantly in European and North American countries. For many, this behaviour can lead to conflicts between the free and rules i.e. cause confusion in a multicultural classroom. MET institutions, as an example, have to be proactive and good research is this vital.

3 Social construction

Social constructivists aim to find out the meaning of what humans create in this world. This we normally do by categorizing what we see, hear, read and experience. Loseke [2] records that our made categories are important because they influence our behaviour as reflected in talk and gestures. The more our categorizations do not represent truth the more disturbed will be our pre-assumptions of others (stereotyping). This can easily result in interaction-problems. Loseke [2, p.19] summarizes this by saying that research interest should be to: "... examine *how* humans create the meaning of social problems; on *what* we think about the world, on *why* we think that way, on *what happens* because we think the way we do".

The categorization of people is necessary. If we do not do it "... we would be immobilized", Loseke [2, p.129]. "It is through categorization that the specific sense of something is *constituted*", Potter [1, p.177]. We can only understand what we have constructed ourselves. If this is correct one can speculate if it is the

words I read or if it is I, as a reader, which contributes to my understanding of a text. A reason for a categorization of others is also to give an identity to the ego. When a person says that a picture is beautiful others will automatically be able to categorize that person. To evaluate the truth, with the help of categorization, is problematic bearing in mind that some statements ("claims" to use a denomination by Loseke) are more truthful than others.

The person that we converse with apparently has an identity or perhaps several identities and during the conversation these identities can change and new ones added. What role does the interviewee take during the conversation and why is this role expressed as it is? Who am I? In the past this question was not a big issue because people had a genuine sense of self. But in today's post-modern era many people have difficulties in identifying themselves. The identification process comprises work of construction by each individual. Loseke [2, p.132] states, "...our reaction to other people are influenced by how we categorize them ...". Based on how we have categorized a person we treat her/him accordingly and from this treatment that person builds up an own sense of self. The building-process becomes easier if the person belongs to an identity group; this rather common. Persons like to identify themselves with others who are alike in a group; this gives confidence and assurance of the sustainability of the created image of own self.

One educational aim is to give the students a chance to change identity and find ones better self. Work and the work environment normally also trigger a change of identity. The modern human being can choose identification by numerous collective identities already established in the world. To be "assigned" a cultural group is also an identity manifestation. To change culture therefore implies a change in social values. When the group, for some reason, has been discredited and the discernment is correct to the member's view it results in the member refusing interaction (i.e. to talk) with the group because interaction is an admittance of belonging. The reason being that identity and identity changes, wherever they take place, are fundamentally accomplished through *talk*.

4 Analyses of transcriptions

The following four extracts are taken from relaxed conversations with: 1) a female civil servant from SE Asia and 2) a native English-speaking male seafarer. Both students have graduated with an MSc in Maritime Affairs at the World Maritime University (WMU) in Malmö, Sweden. The analyses are focussing on the phenomena that contribute to different interpretations of the meaning of what is being said.

4.1 Transcribing

Transcription is considered as part of the analysis. It is tedious work; listening and listening again to the conversations in order to get the transfer from spoken to written words as correctly as possible.

The following transcription-symbols have been used in this study:

(.)	Break in conversation, without measuring the length of the pause
(//)	Overlapping in speech

indicate	Underlined words indicates these words have been stressed
/	The conversation (or sentence) has changed in content; often a spontaneous change
[ ]	My comments on the content of the sentences spoken
.....	Indicates that the context has been out of interest for this research or that it has been impossible to hear or understand what have been said.

The transcription signs are similar, with slight modification, to those used by von Brömssen [3].

Utterances like "mhm" or a tired "yes" or "no" have, in most cases, not been omitted. Spoken sentences have not been adjusted to make them more readable. When a speech *erratum* has been made this is properly indicated. To make the text more authentic, when seen in print, exclamation marks, full stops, comma signs and question marks have been added according to the transcriber's decision. The author is not a linguist but has worked for fifteen years onboard ships with multicultural crews, and for more than twenty years he has worked at the world's apex maritime university with a multicultural staff. At the same time he has addressed (facilitated) a multicultural student body.

4.2 Excerpts

In the following excerpts persons addressing students in class are all defined as lecturers i.e. regardless of whether they have other academic/industry status.

The two selected conversations have been chosen because the first shows how answers can be more or less reliable and the second conversation contradicts the first on the issue who can I speak to without showing extreme respect.

4.2.1 The female civil servant

In the following three excerpts the student comes from SE Asia. She is about 30 years old, a Buddhist with no seagoing experience. In the text IE is the interviewee and IR is the interviewer.

Excerpt 1. The topic is on how the student seeks clarification on an issue talked about during class and if she finds it disturbing when students asking questions or seek clarifications by interrupting the lecturer.

IR: You go to the professor?

IE: **Nnnnn, yes if we cannot can find answer..... [after having tried many other sources]** we go to the professor. (IR: You will not hesitate to) (//) yes yes.

IR: Do you hesitate to interrupt a professor during his lecture?

IE: Nnnnnnn I think quite eh / because for me / (.) I don't know is is. For me I just try to get more information first from the lecture. I will not have the (.) something in the anymore (laughing) because sometime I maybe / because of the English eh English eh is difficult for me. Sometimes, I am not sure that (.) the information that I got at that time is correct that he give me or not. Maybe I misunderstand something so I have to know and I will check with my friend that he talk like this (laughing) like this or not

IR: You will not stop him and say I didn't understand this (//) (IE: Noo). Why is it like this?

IE: Because if I stop him I will stop him all the time. (laughing heavily). I think ..... because even when when another (.) stop him too many times sometimes we talk just follow ..... but when someone interrupt we will stop thinking about that and maybe the question is not relevant with the lesson. So we will loose the concent ....[concentration]. It is difficult to continue (laughing) ya sometimes not so good.

IR: Some students interfere by asking questions does this disturb you or? (//)

IE: Of course, too much (.) yaaaa

The lecturer is apparently the last source to seek clarification on something she has not understood during class. On the question, line (3), "*you will not hesitate to*" she firmly interrupts with a *yes yes*. That *yes* is apparently very strong; she has to interrupt to tell she really cannot go to the lecturer for clarifications. On the replication of the same question, line (4), IE hesitates with Nnnnnn and adds *I think* and twice changes the sentence and adds *I don't know* and makes a special reference to self, line (5). This would indicate that the first firm yes is not as firm as it first sounded. The first yes also contradicts her behaviour during this 50 min conversation where she interrupts IR 24 times i.e. an interruption about every second minute. Normally, western men have the opinion that ladies from Asia are timid and shy. This is perhaps not as prevalent as thought and neither the truth. Becker [4] states that a researcher shall not be too gullible "... because people will tell you things that aren't true from time to time". IE perhaps did not lie on purpose but her behaviour is not supporting her statement. Such behaviour does not go with a future manager. It is not good for a manager's reputation to be unclear when staff need advice etc.

IE wishes a lecture to be a one-way communication, a lecturer's monologue. She tries to "*get more information first from the lecture*", line (6). Because of her avowal of her own skill in English, considered to be weak, she at the same time is worried if she has understood everything correctly. To get the information verified she will ask a friend after the lecture; not the lecturer. Again, for the third time, the hesitation to see the lecturer is verified, line (11), with *Noo*.

On IR's question why IE cannot stop the lecturer IE answers with a joke and heavy laughing. Perhaps she is aware and wishes IR to keep the stereotyping he has of an Asian lady. During this conversation, perhaps, she realises that she shows her real self too much.

In this excerpt one can find a clear border where IE changes her identity from I to we. Between lines five and twelve there are thirteen I's and thereafter between lines thirteen and sixteen she has changed her identity to we; three we's. In the beginning she has put herself as a pure student expressing herself with I. Before turning to the role of a judge where she expresses her opinions with we, she turns into the role of a clown. She raises her voice and is funny by saying *if I stop him I will stop him all the time*, line (12). With this saying she also underestimates herself because her English is fairly good. As a judge she is saying *we will loose,* line (15), ..., *we will stop,* line (14), ... and *we talk,* line (13). By using first person plural she safeguards her opinion even if IR starts the question with *You will* ...., line (11). Her opinions are expressed with *maybe the question is not relevant* and *sometimes not so good.* The choice of the words *maybe* and *sometimes* put her opinion in shade; the door is open for any interpretation of how serious the statements really are. It looks like she does not dare to have a firm standpoint on this issue. Perhaps she, in this context, is an "animator", Potter [1, p.143], set to forward, "who says the words", an opinion she got from an earlier context expressed by others or another person, Asians presumably. One cannot tell if she distances herself from this apparently general opinion. What she says has an implication on her accountability. "You are not

generally accountable for factual claims that are merely reported", (ibid.). This is an important statement to remember when analysing text.

In fact, it is a small fraction of what we know and that we have conveyed opinions on and that we categorize (as all humans do) to build on our own experiences. Loseke [2] also concludes that the categorizations we make are built on types i.e. we judge from a few of a category and allow this to be general for the whole e.g. work category/type. Still, many people are familiar only with workforces from ashore, meaning that sailors are noisy and drunken and a disturbance in society. This image or categorization that they possibly have obtained from old films/literature or old hearsay has become this person's vision of sailors. "... the best we can do is have (sic.) an image of the typical", Loseke [2, p.17]. A person should not be blamed for his categorizations. Categorizing is to see similarities among things. It is commonly human.

Loseke [2, pp.31-45] has further elaborated this idea, much of which we say and think originates from someone else, in his identification of *claims makers*. He distinguishes between five different social pressure groupings/activities that make us attentive to specific phenomena in the world. It should be noted that the truth of a statement or opinion could depend on the type of activities that is set to formulate a specific claim. The five claim makers or activities are: 1) *Cultural feeling groups* (shared values and beliefs), 2) *Popular wisdom,* 3) *Social activists (*groups of likeminded), 4) *Scientists* (evidences above politics and individual ambition) and 5) *Mass media* (packaging claims by others).

This student might be "packaging claims" that others have told her. Alas, do we really receive a true opinion from the interviewee? Perhaps not. If her answer were to be noted, using a quantitative strategy, the accountability dilemma would not be discovered.

Excerpt 2. The topic is on where in the classroom the student positions herself.

1	IR:	Where do you sit for instance in CP Hall: front, back or (IE: in the back) (laughing).
2		Why you sit in the back?
3	IE:	Nnnnnnnn I don't know. Maybe my behaviour (.) but in my University [in country X] I
4		like to sit in the front at front close to professor but it depend on (laughing) / I don't
5		know. Because the seminar is not too serious sir, I think.
6	IR:	So you feel more relaxed to sit (IE: yes) in the back then (IE: yes). But if it is in a
7		classroom?
8	IE:	Ya, if we try to get everything, (.) good [to sit] in front (laughing).

A firm answer tells that she prefers to sit at the back. The answer is given interrupting IR. A laugh is added to the answer perhaps indicating that this is not her normal choice. On the question why she prefers to sit at the back she hesitates and starts by saying *I don't know*, line (3). IE claims her behaviour is culturally coined, but it would not be correct because then she should have chosen a front position. And this she does in adding that this is the case in her home university. In line (5) she suggests that the reason could be that seminars at WMU are not serious. This could, of course, be seen as a severe criticism of the seminars at WMU but as Becker [4, p.108] writes "Leaving cases out because they seem tasteless or politically discomforting is equally guaranteed to be a mistake". Just the mere fact that she mentions this as a reason for not sitting at

the front is worth observing, especially as the explanation has not a good bearing in this context. When IR has seen IE in the auditorium she has been at the front. A guess would be that the reason for her taking the back seat is merely because then she can ask her friend directly, without being impolite, disturbing the lecturer, when there is something said that she couldn't understand. Also, when a lecturer's' English is difficult to understand a rear seat is chosen. She sometimes excuses her frank answer with a laugh; *I don't know*, line (5) and *I think,* line (5).

There is no attendance control at any lectures or seminars. Seminars are uniformly assessed as lectures in classrooms; her answer is puzzling. IE is about to give a "better" explanation by starting with ***but*** *it depend* (sic.) *on*, line (4). Now IE is about to change her mind. Normally, she would say that she likes to sit at the front because then she has more direct contact with the teacher and questions from other students will be less disturbing to her learning. To be shy would be less significant because colleagues are ignored, as if not present.

In the beginning of this extract IE takes the role of a presenter of herself and her opinions; *my behaviour*, *my University* and *I like* etc.

In line (7) she changes her role and becomes a spokesperson of the students from her country (perhaps yet all Asian students) and the footing becomes we. Still she is safeguarding her statement with *if,* line (8).

Excerpt 3. The topic is on how the student finds the assessment of herself considering that she is not active during class.

1	IR:	Do you think that the assessment of you also is negative because you don't say very
2		much in class?
3	IE:	**Yes (laughing)** yaa (.) But, I think only only the same person that always talk in the
4		class you can see. I don't know, just a few, a few students that always talk. But if none
5		talk I will not talk for ever [?]. all the class also, it will be like that. I don't know it
6		depend on the (.)
7	IR:	**You know, if they** didn't say anything (//) (IE: Nnn we will not say) it would be boring
8		also (.)
9	IE:	**No, not** for me because for me it is OK because if I don't understand something I will
10		ask later ….. maybe my question is too stupid for another [student] (laughing) I don't
11		know. (IR: No question is stupid). No, because they already know all [everything]
12		(laughing).

IE starts with a firm *Yes* as an answer to the question. In the same line (3) she comes with a *But* and with this word it can be understood that the firm answer is perhaps not as firm as it sounded. In addition, IE adds *I think* signalling to IR the answer is linked to some uncertainties. In line (4) she expresses another indication on a doubt on the firm *Yes*; *I don't know.*

The rest of the answer is very non-cohesive and does not make much sense. With words expressing uncertainty IE does not clearly tell IR that her silence in class is believed to have an impact on the assessment of her. The laughing after the *Yes* also indicates that there is uncertainty in the statement. But IE is firm that any disturbance during lectures is a problem for her, even if the lecture becomes boring according to IR. The interruption of IR, line (7), indicates that she is very sure on the negative effect of any interruption of the lecturer. The raised tone of voice, line 4-5, has the same effect: it is bad for me.

On IR's remark *No question is stupid*, line (11), IE answers *No*, which would indicate that she encounters stupid questions during lectures. This disturbs her in her learning because she only wishes to listen to the lecturer. *Maybe my question is too stupid,* line (10), is a statement making the answer to the original questions something she does not wish to answer. Before entering the WMU's English Study Skills Programme IE had an IELTS level of 6.0 and made good progress. She had about a 75% average final grade in her M.Sc. i.e. she knows that she is capable and that her English is sufficient.

The many laughs in this excerpt could indicate that this question is not particularly important to her. IE did a lot to avoid a "serious" answer to this question.

Can IE be categorized such as giving sincere answers to this topic? The question is perhaps merely as Potter [1, p.139] (my brackets) elaborates in saying "... how he (here she) should act if he (here she) is to be treated as a member of the appropriate category".

In this extract IE takes the role of a worried student. She keeps expressing herself as I but when the question comes on what would be the situation in the classroom, if nobody but the teacher is talking, then she changes her footing to we, in *we will not say*, line (7). IE could well have continued with I because she has already many times said that she is not the person to interrupt the lecturer with a question or a clarification. The reason for the change could be "... to constitute the item as sensitive or controversial", Potter [1, p.144]. IE gives a signal of neutrality. Generally " ... the non-specific plural avoids these troubling difficulties with the account", Potter [1, p.162]. This is also the reason why she before a statement either says *I think* or *I don't know.*

In lines 9-12, IE expresses herself on the opinion that all the other students are persons that *already know all.* IE has taken the role of a spokesperson on all students being more knowledgeable than her. Again she has taken the backseat, being modest concerning her knowledge.

4.2.2 The male seafarer

In the excerpt, the student comes from an English speaking country. He is about 30 years old, a Christian with seagoing experience. In the text IE is the interviewee and IR is the interviewer.

Excerpt 4. The topic is on the issue if fellow students can interrupt him when they do not understand what he says.

1	IR	**Can one say that they [the fellow students] don't hesitate to stop you if there is**
2		something they don't understand?
3	IE	Ya, ya I would say that's true.
4	IR	They would say: Hey, [...] what is this?
5	IE	**Right, jah. Because if sometimes I speak** too fast I would slow down.
6	IR	And they openly tell you this?
7	IE	Ya, ya (.)

These few lines indicate that fellow students do not hesitate to interrupt a colleague. An example of a fellow student was discussed in Excerpt 1, confirming that she does hesitate to interrupt lecturers. The obvious conclusion must be that power distance and students respect for the teacher, as an authority, is a feature, most likely, predominant in shipping circles; a good behaviour in

certain contexts but a hindrance in an interactive classroom where one wishes to argue and discuss specific phenomena. Therefore, individual students (read predominantly female Asian) will feel left out and their grades might suffer from their culturally inherited behaviour. Interestingly, these students still have good grades; they are good at memorizing. At the MSc study-level the exam-questions should be of such type that they encourage independent thinking, draw upon formulating conclusions and find consequences (right or wrong is of minor interest, *arguing and critical thinking* is vital).

5 Conclusion

A major goal is to find what happens to a person's identity, values and perceptions in a specific context. The language used and the behaviour showed by the civil servant, demonstrates we are "all alike" when being approached on a level playing field. It shows that culture acts as a barrier for self-defence and protection against the unknown. The theatrical acting becomes less necessary when the two conversing know each other; the stereotyped categorization becomes less deviant. The discussions also show that with less power-distance (excessive respect) the outward show becomes more natural.

Fact constructions in the statements by the interviewee very much depend on the footing. "... the paraphernalia of footing is often a major resource in building factual versions", Potter [1, p.148].

In the first three excerpts there is a remarkable repetition of I: I think, I will check, I don't know (thrice), I don't understand, I will ask, I will not talk, I like, I just try, I am not sure etc. that will underscore she is rather self-centred. Her talk is principally specific for her. How she expresses herself does not have to be typical of her culture. This self-centred approach would possibly make her a good leader among likes and good for survival in a male dominated industry like shipping. When she becomes confident in English, she might be a leader also among non-nationals. An argument against this statement could be that too often, she does not give firm answers. This ego-centred behaviour is perhaps also something that throws our stereotyping of Asian females overboard.

Another phenomenon in our talk is that we often speak in single words, phrases and fragments of sentences. Conversational talk appears to be structured in a rarely consciously clear manner. Sometimes we find it necessary to "watch our language" by avoiding certain phrases or words. Because of this some statements perhaps are more truthful than others. Irony and sarcasm is another way of saying one thing and meaning another, as exemplified in excerpt 1 line 12.

We seldom make deliberate decisions when talking. And as Tannen [5] concludes, "... there's an aesthetic pleasure in communicating cryptically". These phenomena, and also that people suddenly become silent, are difficulties that one still can overcome and analyse in an effort to find the meaning and reason of talk. In excerpts one, two and three the student is expressing herself with different constructed identities. The changes are both frequent and striking. Table 1 summarises this phenomenon and illustrates how the context and the reason for the arguments labels the way she expresses herself.

Table 1: The civil servant's identity changes.

Excerpt	Identity	Pronoun	Reason	Topic
1	Student	I, me	This is own opinion assured with "for me"	Stop teacher
1	Clown	I	Expressing own opinion being self-ironic on own behaviour	Stop teacher
1	Judge	We	Safeguarding own opinion when talking about another and others opinions	Stop teacher
2	Declarer	I, my	Statements self guarded with maybe, I don't know, I think	Seating selection in the auditorium
2	Spokesperson	We	Firm statement on behalf of others	Seating selection in the auditorium
3	Worried student	I	Safe guarded with a number of buts	Assessment
3	Students' spokesperson	We	Statement on other students	Class-room situation

People construct themselves and create identities as expectations or views change and in a way to fit the current situation, Potter [1].

One of the powers of descriptions lies in what they fail to describe (ibid.); what has been ignored or left out. Not in any of the three excerpts has this been examined as it is both difficult and contentious.

To understand is not a single-minded operation. Questions associated with constructionism might not seem real or very important. Though, Loseke [2, p.167] summarises that "... constructionist studies nonetheless can give us very important information about the world around us". Apparently, it could give more information of the truth than a tick in a questionnaire box.

Disclaimer

The views expressed in this paper are the personal views of the author and not necessarily those of the employer of the author.

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V

Getting the best from multi-cultural manning

By Jan Horck

Over the last thirty years, the world merchant fleet has become significantly multi-lingual and multi-cultural in crew composition. Today, about two thirds of the world's merchant marine vessels sail with a crew composed of several nationalities.

At times, the crew mixture may experience behavioural problems both at work and off duty that can affect ship's safety, pollution prevention and security. In the past, casualty investigators have not studied interpersonal situations/relations in their investigations. Reports on the impact of human relations are almost non-existent. This paper seeks to provide awareness of, the benefits of mixed crewing.

Introduction

From the title of this presentation, one could assume that a ship sailing with a multi-cultural crew is a positive and interesting challenge. This is as it should be. If not, it may indicate that the managers of mixed crews may lack awareness, knowledge or simply do not dare take advantage of this opportunity.

Surely, the reason for having this subject on the agenda is that many owners have difficulties managing multi-cultural crews. That this subject is discussed in many maritime forums indicates that we are *not* taking full advantage of ethnic mixtures and that we *do* have a problem. This problem will grow unless we quickly find a sustainable way of how to work together. With less prejudice and stereotyping in this multicultural-setting this might be feasible.

Perhaps the industry needs to follow the example of someone like Alexander the Great and do something drastic or extreme. Or do as the Norwegian shipping company, JO Tankers that has decided to change most of its EU officer's contingent to Filipino officers (Frank, 2005). I think we have a problem here. Well, most of us have problems, but here we are faced with a challenge that should not be denied or run away from. It is not a big problem today, and perhaps not tomorrow either, but in the near future it certainly will be unless we take a closer look at the occurrence of ethnic mixtures on board ships, in maritime education and training classrooms and in company boardrooms.

A true global shipping community requires co-operation with both cultural and language boundaries. For most players in the industry, this does not seem to be the case. The joint website *Alert!*, by Lloyds Register and the Nautical Institute, shows there is a concern. Really, all of the facts are needed to understand why accidents happen.

More than once, co-operation has been an International Maritime Organization (IMO) theme and that applies also to managing mixed crews. In fact, recruitment practices, as carried out at some places today, could be a serious threat to both the ISM Code and the Revised STCW 78 (STCW 95) where it is understood that crews must be *committed* (loyal, devoted, dedicated) and able to communicate effectively free from prejudice (discrimination, chauvinism, intolerance). With increasing workforce mobility, this issue has become a particular challenge for shipowners (hereafter owners) within the European Union. Sadly, the European seafarer has become an alien species. Notably, this is not only the case for European seafarers but also for Japanese, Malaysians and other.

Many owners worldwide use mixed crews. Is this a forced necessity, undertaken only for commercial reasons? Are there other intentions/benefits? A multi-faceted crew is in itself nothing new. Have we learnt from the past? In the old days, the "foreigners" in the fleet were seen as a compliment to nationals. There were a lot of people on board 30 ▶

◀ **28** and we had time to check each other to ensure there were no misunderstandings and mistakes; sometimes a result of bad communication. There are not many comments on mixed crews from those days. An interesting exception, for instance, is the research done by the internationally respected Dr. David Moreby (1990) concerning *Communication problems inherent in a cross-cultural manning environment*.

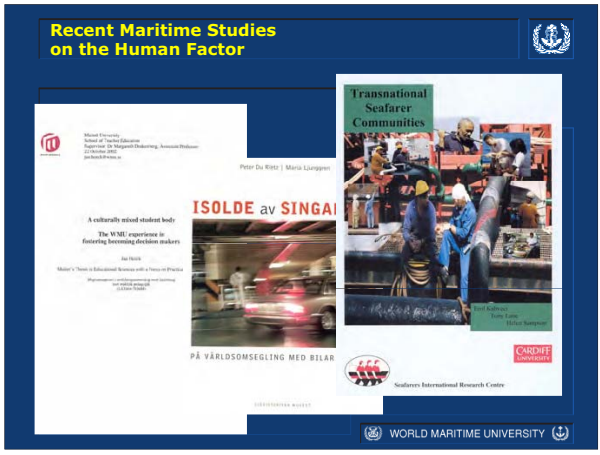
To improve productivity through people could be a positive experience even in a multi-cultural setup. A prerequisite would be that the company has a policy that promotes this approach and that everyone on board realises that there are benefits. A policy is needed because work ethics vary not only between individuals but also among groups of people. With globalisation comes the need for effective communication and cultural awareness, both important management parameters that should be clearly recognized in a company's policy.

A well-trained, *safety-communicating* crew has become a prerequisite and a mandatory requirement in today's shipping. To ensure this, several P&I Clubs conduct human-factor training programmes. Insurance companies take a proactive interest in preventing accidents; owners should be equally proactive. We should all take an interest because "Skills and motivation do not have anything to do with nationality" (Hooper, 2004a, p.37).

A wide range of activities can assist when things go wrong. Shortcomings in procedures, practices, equipment and erroneous acts are contributory causes for things that can go wrong (Hooper, 2004b). Other causations are a lack of communication and stereotyping that could trigger an accident or an incident before, sometimes long before, it actually happens.

A serious problem is stereotyping and judging people with the wrong measurements. When we judge others who we do not know, we interpret the meaning of the reason for the behaviour of someone from another culture usually with emotion. The problem appears when we do not know the values, perspectives and approaches used by the other culture.

Today, many accidents are explained by human factors (70-80%) often sub-headed by clarifications like fatigue and bad ergonomics. There might be an equally important reason for human factors and that is multi-cultural misconceptions, power distance (a subaltern's respect to superiors), stereotyping and substandard communication.



Previous studies

A few recent studies generally conclude that ships operating with multi-cultural crews are not without problems. Since the reports are often contradictory, owners and others must be confused. Below are four of these studies to illustrate this:

1) SIRC, in Cardiff, published *Transnational Seafarer Communities* saying: "…when supported effectively (mixed crews), can operate extremely successfully" (Kahveci, 2001, p.26, my adding in brackets, my underlining).

2) A Swedish ethnographer published *Isolde av Singapore* with a general remark that the Captain was worried almost every day (Horck, 2004a).

3) The Philippine National Maritime Polytechnic published a report *The Experiences of Filipino Seafarers in a Mix Nationality Crew* concluding that there are some problems (Devanadera, 2003).

4) In *An analysis of decision-making processes in multicultural maritime scenarios* it is concluded that the issue is not problem free (Horck, 2004b).

Four times problematical: no wonder JO Tankers are going to change to a more homogenous crew.

No researcher, to my knowledge, has been able to show or identify any real benefits of having a mixed crew. Owners should express their views on mixed crews more openly, because this is in everybody's interest and above all in the interest of ship safety.

With these research studies in mind I am inclined to question whether there a maritime capability to communicate? We certainly cannot afford to make mistakes and take wrong decisions, neither on board nor in company boardrooms, because of mis-communication by not understanding the *meaning* of what is said due to cultural differences, prejudice, power distance and stereotyping.

Culture and authority

One could ask oneself how many persons from the same culture group are needed for the group "to group". Knudsen (2004, p.105) reports "… crew with more than four nationalities, since there are no majorities and minorities and nobody to claim ownership of the shipboard culture". Joishi (2005, p.5) writes "… that Teekay's officer compliment includes seafarers from 10 nationalities … such a success story is relatively rare … where mixing even two nationalities is a step taken 'with much caution' …".

As an example, Knudsen states that Danes, in general, do not believe they can learn from foreigners, although, younger Danes better realise that they can learn from non-nationals. Perhaps, the younger generation will reduce today's worries? My study summarises that if there are three or more nationalities, they group like birds of a feather ▶

◀ that flock together. Groupings are not good for mutual understanding. It also shows a lack of curiosity and a fear of the unknown.

Knudsen also advocates that the industry will have less friction on board if officers' co-operative competence is strengthened and everybody learns teamwork skills. If this were done, an overall benefit of cultural mixes would be achieved. People dining together contribute to cultural understanding. Equally important is chatting. Apparently, small interactive activities can create a great impact on co-operation.

Mixed cultural living is possible ashore where there are a lot of people with whom to socialise. This is not the situation on board with say fifteen crew members and where the majority are on watch or sleeping. Owners are crewing in accordance with safety regulations but the group is simply too small on board. Thirty years ago, a crew numbered 35-40 persons and the chances were a lot greater that you could find somebody to talk to and be friends with.

On board, we can attend only one movie and normally be served one type of food. This can be frustrating. To be on board, for say half a year, and not have anyone to talk to more than to say "good morning" and "thank you" etc. leads to alienation and s/he becomes a risk factor. If on top of this, you are not allowed to go ashore (an ISPS Code consequence) and the ship's turnaround time in port is only a few hours (too short for a shore visit), you could draw parallels to an obedient citizen being put under house arrest. Again, these circumstances could turn into a risk. Seafarers must realise that a ship is a very broad community of friends. If the industry does not pay attention to these human factor aspects perhaps we will again see owners "shanghaiing" their crew; though, normally, nobody would want to sacrifice himself for an owner under such conditions.

With a marginal sized crew it also becomes difficult to be a deviator which is contrary to ashore, where a deviator is assimilated in the crowd. Seafarers often have problems handling conflicts. From my study, it can be noted that in a conflict, people (WMU students) prefer to withdraw than to argue. Silence, particularly in an important issue, is dangerous. To debate is usually better than to shrug one's shoulders.

In the future, if the social environment on board is poor, with no rules without exemptions, then with this condition, only the dregs and people with no formal education will muster. This, of course, would be insane and not defensible on a high-tech ship. Owners need to look after their manning preferences and stop being historic or nostalgic in crew selection. Owners need to assure crew members' continuous learning, introduce better monitoring of the crew and their competencies and increase crew motivation.

Communication

Communication is our most important human tool for understanding, co-operation and action. Sadly, it is also the tool that can make us the most confused and frustrated. To communicate is to interpret a message for its meaning.

Jan Horck

One of a manager's prime activities is to mitigate communication so that people can speak freely to each other. If the crew/staff is multi-cultural it creates a great deal of complexity if you admit that a crew is a value-added factor for output and profit. Lack of information contributes to crew fear, uncertainty and the spread of rumours. It must, therefore, be the officer's or department head's duty to communicate what is happening on board or in the office. If this is not done well, there will be discrimination. With this follows that crew members from other nationalities than the flag must, in clear terms, be given information on their rights and duties. If this is done properly, one can expect co-operation and devotion.

Partly, the ISM Code focuses on *safety-communication*, which is sometimes the target for surveyors and customer's vetting inspectors. The limited, required language knowledge is not enough to give an individual a social life on board; hence s/he becomes alienated and thus becomes a safety risk; no matter how short the length of time spent on board. In debates on ship safety, the limited language knowledge of a crew is normally not considered.

One benefit of working with people from other cultures is that you have the opportunity to learn about their cultures and languages. The NUMAST journal Telegraph (2005) reported on a cadet who learned Hindi through his crewmates; he then became less lonely. In the long run, we cannot allow ▶

◀ such experiments with an already limited number of people on board. Loneliness is a safety risk, particularly when the individual cannot handle it. How do you know that you can handle it? A "crazy test" for all crew would be wise!

A cross-cultural *faux pas* (very culture-specific violation/s) happens when we fail to recognize another person's culture. People from other cultures have goals, customs, thought-patterns and values that may be different from our own. Interpersonal work with unknown (host) nationals may become bitter because of misreading verbal and non-verbal communication signals. This is not because of personality (Harris, 2004).

Symbols manifest most communication. Such symbols differ in meaning dependent on time, culture/person and place. Interaction between humans is characterized by a continuous update of the meaning of symbols. If we accept stereotyping it will become a barrier to finding the authentic meaning of spoken sentences (as far as possible and to the best of our ability).

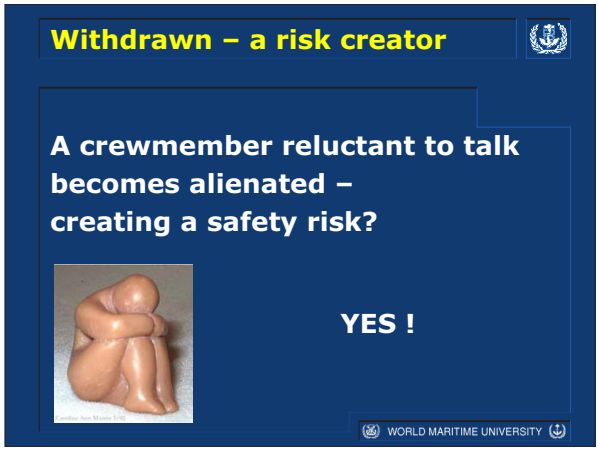
When we communicate we project our own image (needs, expectations, ideals, perceptions etc.); mainly through appearance, tone of voice and the selection of words. All too often, the messages sent are not the same as the message received and strangely, humans are often content with a brief understanding of a communication. This explains why a natural language is not used when commanding. In addition and because of lack of training and poor communication-discipline a prodedural (short and concise) language is used, though not always with success (The *Estonia* and *Sleipner* accidents are two examples).

For many of us culture-communication becomes a challenge because there are many unknown variables. In some cultures people straightforwardly wish to spell out what they mean; others do just the opposite. If practicing the latter, there are fewer possibilities to interpret the message, look for meaning, understand pauses, seek relationships and look for empathy.

It is puzzling that the communication competency least taught in schools is listening (at least in the Western world). Worldwide, very few people know how to listen actively. Too often it happens that a WMU student cannot complete a sentence (no rule without exemption) during group-work assignments etc. The reason is that often group members become too exaggerated or a speaker's English is too long-winded (uncertain of getting a message across) or simply that his or her English becomes too weak in certain contexts.

To clarify talk, paraphrasing is recommended. This is an active listening habit that is essential when the crew's English is weak. By repeating the other person's talk in your own words (to make isomorphic attributions) it becomes easier to understand meaning and it also is an assurance of understanding. In multi-cultural communication, one should also be particularly careful to avoid uncommon or esoteric words; do not say e.g. efficacious but effective.

Stereotypes are attitudes that we attribute to a person's characteristics based on the group to which that individual belongs. In stereotyping we attempt to make it easier to predict another person's character and possible behaviour so as to reduce our own uncertainty. If our prediction of behaviour is wrong there might be a conflict in understanding. An ability to predict behaviour is not something we are born with, but we often need ▶



◀ to use typifications for social problems. Aristotle's way of thinking is widely adopted in the West and it is certainly a different way of thinking to Confucius, a representative for Asians. Such differences reflect disparity in cultures.

New competencies are required in order to make cultural differences a resource and to facilitate interactions with those who do not share the same values. Communication across cultural boundaries is difficult; the danger is that a reticent and non-communicative crewmember is an inherent safety risk. The reason is understandable because of weak English or large power distance.

Crewing

According to Mortimer (2005), there is an increased demand for senior officers from former Soviet Union countries (FSU). A good reason for a demand is their high level of skill, which is well comparable to Indian officers. One evident reason is financial: EU short sea operators have less crew home transport costs. Another reason for moving recruitment from Asia to Eastern Europe could be that the cultural differences are less striking. A fourth reason (not verified) could be the pronunciation of English of crew members from FSU countries is reasonably good and they offer acceptable communication skills; besides, low crew-cost is no longer a major driving argument to reduce operational costs.

More important is mustering a crew with good knowledge and skills. Officers serving on modern ships command very expensive units, hence owners dare not risk ships being detained by port state control officers (PSC) because officers and ratings are not up to standard on communication and cultural awareness aspects.

A genuine, classic owner, with a fairly small number of ships, might have a more personal link to the crew than a mega owner, who might not be known by individual crew members. The link between crew and owner must be more personal. This is a significant piece of STCW and ISM concerning the owner's commitment to seafarers, not only the opposite.

A good code of conduct ensures that the officers are on board for the same duration of time as the ratings. This is sometimes not practised because air tickets are more expensive for EU owners getting crew from Asia compared to Eastern Europe i.e. crew stay on board for a longer time than officers that are recruited from Europe. It is also bad practise to allow an officer to dine with his national rating colleagues. Officers should dine with other officers, independent of their nationality. When sailing with officers from the ship's flag-state and ratings from other nations/cultures/religions, it is strongly recommended that the ship's Boatswain be of the same nationality as the ratings; the work morale will then be healthier.

People who become members of a ship's crew do not necessarily love the sea. They muster for the sake of making a living. Therefore, but not always, we find that the very best suited people are not going to sea. A ship is an expensive enterprise that deserves good calibre people and very good officers and this is "required" in the ISM Code. A person with e.g. a criminal past should not consider a career at sea. How can owners be assured that crew is assenting? Presumably, if the seafarer has the same nationality as the owner it becomes easier.

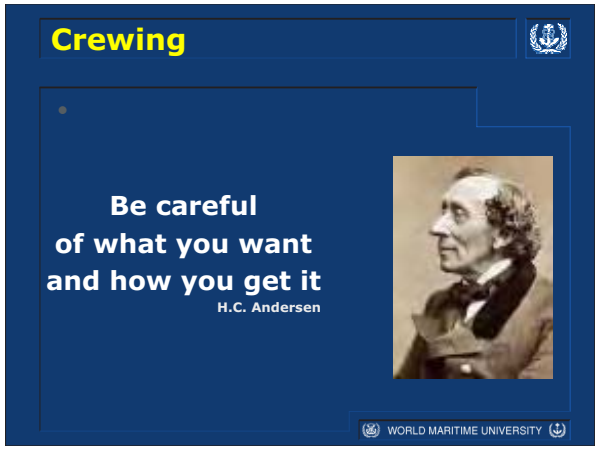
Normally, a person with different views and ideas is an asset. Different thinking comes with varied cultures and religions. New ideas should be welcomed in a competitive environment. It is better to have different ideas than no ideas at all. Therefore, people from other cultures (thinking differently) and women (who usually also think in another way) should be more than welcome in the industry.

Furthermore, the predicted world officer shortage will make it necessary to muster different nationalities; an unrestricted international crew would reduce manning limitations. Barber International has an opinion on this (Hand, 2005). Owners can get the best crew from an extensive selection. A further option might be to waive the requirement, which many countries have, of having captains of the same nationality as the ships flag.

According to Malone (2000, p.104) optimised manning is "… the minimum number of personnel consistent with human performance, workload, and safety requirements, and affordability, risk, and reliability constraints". Ship manning reductions increase the risk of human error. Therefore, the minimum manning level on board ships with a mixed crew should be higher in number than with a homogeneous crew. Owners should be proactive and increase their manning-levels. This will also increase the chances for a crewmember to find somebody alike to talk to, reducing alienation and hence the possibility that the individual will be a safety risk.

Gonzalez (2000) found that the factor most important in improving relations on board in the Spanish merchant marine is the officers' commanding abilities. Beside officers' management skills, I would like to add communication abilities. Gonzales' second finding was the character of other crew members. It looks as if character has a linkage to ethnicity.

The Filipino National Maritime Polytechnic (Devanadera, 2003) did a study to determine the problems and issues encountered by ▶



Filipino seafarers in a crew of different nationalities. It found that 70% of Filipino crew members were less than 40 years of age and only 5% completed high school. 66% of the respondents (1,140 persons) did not encounter any problem working with other nationalities. However 31% (a high figure) said otherwise and they mainly referred to problems with superiors.

Communication and languages were the most commonly encountered problem; a poor command of English. "Raising of voices or shouting when giving orders were (sic.) negatively received by Filipino seafarers …" (ibid, p.4). This result aligns well with the Spanish research above. Problems related to attitude were: arrogance, superiority complex, racial prejudice and ethnocentricity.

The report also finds that Filipinos complained that they were made uneasy by excessive drinking by colleagues. Filipinos were also distracted by their colleagues' body odour and this affected interaction. In summary, the report found that problems are mostly culture-related. It is recommended that prior to their deployment, crew be given a course to familiarize them with cultures they are assigned to work with to avoid stereotypical behaviour that may create racial bias and misunderstanding. The study recommends a Code of Conduct for Mix Nationality Crew (ibid, p.6).

If you are a good leader I am a good follower (Knudsen, 2004) holds good for any type of mixture of people; but how many of us are born leaders? Not many, but we can normally learn to be. Part of this learning is cultural awareness. IMO has very little of this in its model courses. A summary of the hours dedicated to cultural awareness in the IMO model courses adds up to an average of about 1.7 hrs. (Horck, 2003).

If a crew has the skill and knowledge with reference to PS controls and flag state (FS) inspections, this is normally satisfactory to Maritime Administrations (MA). PSC officers randomly decide what to look at, besides checking certificates; seaworthiness is not determined and a protocol of eventual deficiencies is issued. FS inspectors follow checklists - a certificate is issued, including eventual other issues, if the ship complies with requirements. If ever checked, these two assessments only assure that the crew has a command of the English language needed for ships safety i.e. technical words and commands.

The ISM audits require *compliance to a system*; hence crew communication capability should be extended to more than the bare safety of the ship and its crew. The MA controlled verifications that control language are not enough, bearing in mind that communication in a crisis situation, an action of the unknown, is very unpredictable. All on board should be competent in the ship's working language, not only to manage work and safety issues, but also to be able to socialise. If not, the crewmember will be alienated and this may indirectly create a safety risk. Surveyors and inspectors should be alert to specific conditions that can be symbolic of larger problems. Perhaps, the definition of safe manning should be supplemented with cultural awareness and wider communication skills. Incidentally, it is worrying that most MAs in the world, in fact all except three, delegate the ISM audit to a Class society.

Many tanker owners hesitate to sail with mixed crews because the oil majors, with their vetting procedures, are not in favour. This is a subjective view, which I do not have full support for.

The Oil Companies International Maritime Forum's (OCIMF) (2004) *Tanker Management and Self-Assessment, a best-practice guide for ship operators* (TMSA) is strictly used by most oil-majors. TMSA has twelve elements for the owners to follow; two (three) of them are directed at our issue: language skill, personal interaction and cultural awareness.

Element 2, Recruitment and management of shore-based personnel, stage 1: The company has a written plan … Induction (of new recruits) covers all policies including safety, health, environment, quality, business ethics and cultural awareness (OCIMF, 2004, p.10, my parenthesis and underlining).

Element 2, Recruitment and management of shore-based personnel, stage 4: The company promotes appropriate interpersonal skills training. (ibid, my underlining).

Element 3, Recruitment and management of ship's personnel, stage 2: Procedures cover a range of factors including previous experience, age limits, ability to communicate in a common language and … (ibid, p.12, my underlining).

These elements are not only a guide for tanker operators but could well be used for any ship operation. However, emphasising the above elements, also indicates that the reason for this paper is something owners should pay special attention to; it may be crucial in minimising accidents.

Bridge Team Resource Management can be a problem if the members do not harmonise and communicate effectively with each other; therefore, this has become an additional "challenge of ensuring crew social and cultural compatibility …" (Amanhyia, 2005, p.3), for the owners.

Management styles

One can perhaps formulate two different

reasons why mixed crewing has become a challenge:

1) One reason might be that old-fashioned management styles still are practiced. Younger generations worldwide perhaps are not ready to accept this. We have a clash.

2) When flat management is practiced, as in many industries ashore, we try to practice/implement teamwork on board. Teamwork, perhaps not always applied in a correct way because it certainly does not mean that the captain is thinking loud. Teamwork is by necessity limited by the responsibilities of the ship's captain. It may also be that some crew members prefer to receive clear and direct orders.

I am inclined to agree with the opinion that we have gone too far in practicing flat management on board. The majority of international crews are not ready to accept this, especially when those who are going to cooperate do not know each other and, in addition, have cultural differences.

Ship operation is not really suited to too many discussions. Crews live under emergency-like conditions, on 24 hours stand-by. In an emergency one has to have a strong leader. So why not learn to live with it from the very beginning - no confusion, no guessing!

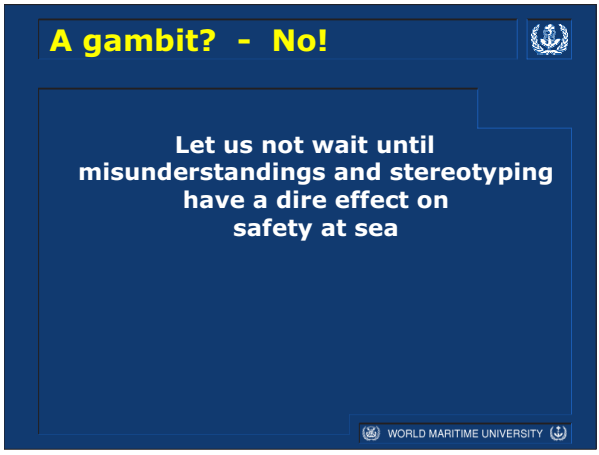
Currently, the issue of culturalism is at the top of the political agenda. However, what is evaluated as troublesome at one time and in one place might not be evaluated as troublesome in another time and place. Perhaps, if we wait a decade or two these problems will solve themselves.

Johansson (2004) has published an interesting book *The Medici Effect* which has become a bestseller in the United States. He shows how industries ashore that have purposely employed foreigners have succeeded brilliantly, realizing the benefits from diversity. Why not in shipping?

Shipping cannot wait two decades. Perhaps the industry is too conservative, and not yet mature enough to take advantage of this mix. Scandinavia never had strong colonies compared to some other European countries. Many Scandinavians have never realized what benefits there could be. Perhaps, this is why today some owners dare not confront the unknown.

Advantages

What are the benefits today? To be realistic, is it possible to identify a substantial factor in favour of mixed crews? The answer is yes, but not with the management practices in use today and not with the poor knowledge of cultural awareness that many managers have.



Below are seven (obvious) statements of the possible advantages of a multi-cultural crew:

1) Crew members from different cultures may tend to use different intellectual processes and patterns, providing a diverse range of responses and input.

2) Customers may benefit from being able to choose to deal with a crewmember who is culturally or linguistically from the same background. This may make business easier or faster.

3) By ensuring a broad mixture of nationalities, the captain's authority is unlikely to be challenged by strong national groupings.

4) The larger the pool of possible crew members, the more likely it is that excellent staff can be recruited. By applying artificial limitations, shipowners are reducing their chances of recruiting the people they need.

5) By working in a multicultural crew, each member's knowledge of the world will be improved. This may be of advantage to the company later, if a seafarer transfers to a shore-based job where such knowledge can translate directly into a business advantage.

6) In themselves, cultural differences can be business advantages; for example, the lower alcohol consumption of many Asian seafarers is likely to improve safety. Such differences may also impact on other members of the crew: an individual from a hard-drinking culture may be influenced to moderate his behaviour to more appropriate levels.

7) Recruiting seafarers from developing countries often provides support to those countries from remittances sent home to families. The impact on the economy provides a spur to improve maritime training in those countries, which in turn again improves the pool of candidates from which shipowners may recruit.

The benefits of cultural differences depend on respect being shown. People should be happy to pass on their knowledge to others, especially safety; generally nobody should be afraid of administering a rebuke. Danish owners appear to handle crew mixtures well. The reason could be that gentle but responsible management is carried out by way of a Danish smile - det Danske smil.

Conclusion

Regrettably, today there are not many encouraging arguments for mixed crewing. Not until we start to realise that we 1) can learn about other cultures, 2) must adopt a stronger leadership, 3) must understand what really is behind the concept of teamwork and 4) make additional efforts to communicate clearly, without using language as a tool for domination. ▶

◄ Orders must be repeated and nothing taken for granted. A clear corporate culture has to be introduced.

If we follow the ISM Code and pay attention to the routines and procedures against all identified risks then possibly some advantages can be found in a mixed crew. As A.P. Møller puts it: "rettidig omhu" - with constant care. This should indeed be applied to people, the best investment target for success and progress. Send the crews to Bridge Resource Management Courses, respect knowledge, learn from the *Herald of Free Enterprise* and look at the ship and its environment in a broad perspective. Work as a team, but first learn what teamwork is.

If the study of multi-cultural issues is introduced into the curriculum in national maritime education, perhaps fewer accidents/incidents will occur on board. Owners and others in the shipping industry will certainly find advantages from the differences.

Maritime education and training institutions should also consider the communicative competence of those training to become officers. A further analysis of competence should include the skills of being able to adapt to different social situations.

People solve problems more in teams today and that is why it is important to employ staff with a good social competence; perhaps it is more important than employing people with high intelligence (IQ).

Lloyds' List (2005, p.7) writes "there has been insufficient research done on the attitudes of modern mariners and the effects of everything from multicultural crew to … in modern ships". And Grey (2005, p.6) adds: "It is important that the industry is at last putting a growing amount of resources into the human element". Let us not wait until misunderstandings and intolerance have a dire effect on safety at sea.

Dear reader, if you can add to my list of the positive aspects of mixed crewing, I would be delighted to hear from you. ■

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Editor's Note: *Captain Jan Horck has a Master Mariner's examination from the Malmö Maritime Academy (1970), He also has an "Extra Master" (Navigations-lärar examen) from the University of Stockholm (1979). Capt. Horck has obtained academic credits in mathematics, astronomy and pedagogy from the University of Lund and the University of Malmö and in 2004, he earned his Master of Education degree at Malmö University.*

Between 1965 and 1982 Capt. Horck served on board ships of the Broström Shipping Company in different capacities. In 1980 he enrolled at the Maritime Academy in Malmö (University of Lund) as Associate Professor. In 1982 he took part in the pre-planning of the World Maritime University (WMU), and has been engaged by the WMU since 1983. At present, he is a Lecturer at the university.

His international experience includes conducting and lecturing at IMO/SIDA international courses on survey MARPOL Annex II and I and presenting papers at inter alia *BIMCO, IAMU and IMLA seminars. He is also a visiting lecturer at IMO's International Maritime Academy (IMO/IMA) in Trieste, Italy and the TUW Academy Middle East in Abu Dhabi, UAE.*

Besides lecturing at WMU, Capt. Horck has been engaged in research projects such as the EU project on Harmonization of European MET systems (METHAR), an EU Study Project on the Maritime Education and Training Systems of China, India, Indonesia and the Philippines (CIIPMET), Maritime Training in Malaysia (ALAM) and in the EU project on Information exchange and impact assessment for enhanced environmental-conscious operations in European ports and terminals (ECOPORTS).

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Is it justifiable from a maritime safety perspective for ships to sail with a minimum crew of different cultures? Is it possible to educate a student body hailing from different cultures assembled in a multicultural environment at an international institution and pursuing maritime education and training? These are important and challenging questions in the modern shipping community of today operating within a globalized world.

This book attempts to provide a heightened awareness of the challenges that can lead to costly consequences for individuals, shipowners, teachers and other stakeholders within the shipping sphere unless courses are taken in cultural awareness and spoken English is improved.

The industry, in general, appears to be incapable of coping with diversity or is hesitant to balance eventual advantages against eventual risks. The likely reason is that past research initiatives may have left the industry in a state of confusion, instead of affording useful guidance. The question that provokes thought is - what research method is most suitable for the conduct of studies on people involved in shipping?

In this book, the author, using World Maritime University students as the prime research object, discusses conditions on how teaching and living in a multicultural society is no hindrance to good academic performance. In the context of casualty investigations, where the human factor has directly or indirectly contributed to an accident, it has been suggested that better communication is needed on board ships and between ship and shore.

The author concludes that fatigue and ergonomic constraints are not the only causes of accidents; lack of cultural awareness and lack of communication are important ancillary reasons.

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