The MARCOM Project

Final Report

Volume 1

The Impact of Multicultural and Multlingual Crews on MARitime COMmunication

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Volume 1

Tables in Volume 1

Figures in Volume 1

Introduction

This is volume 1 of the consolidated report of the MARCOM project. It deals with the problems and practices of maritime English usage. Volume 2 covers training procedures used and those recommended.

Over the past 25 years or so approximately 80% of the world's merchant ships have become multilingual and multi ethnic in crew composition. This reflects the increased globalisation of the industry with deregulation under many national flags of the tradition maritime countries to flags of convenience to enable the recruitment of low cost crews on a world-wide basis.

As well as having more diversity of crew there are now fewer numbers in the crew of a merchant ship. This in itself can lead to loneliness stress and fatigue. If there are also problems of communication contributing to a lack of mutual confidences, suspicions and misunderstandings, then the opportunities for human errors leading to dangers to the ship, the people on board and the environment, are greatly increased.

As the ship is both a home and a workplace for seafarers and constitutes a self contained unit, there are several functions and types of communication requirements to be met. There is the need for clear verbal communication between ship and shore stations in coastal waters and under port pilotage, the ability to be able to communicate between ships in areas of traffic congestion or experiencing manoeuvring difficulties. Also the need for precise interaction when operating the vessel, when giving and carrying out orders under normal and emergency situations and communication between the crew for maintenance of social harmony during off duty periods and subsequently for team work.

There are many examples of communication lapses in the above categories which have contributed to accidents and major marine catastrophes. The solutions to these have included the use of the English language word-wide in ship to shore and ship to ship communication when different nationalities are involved. This has been facilitated by the introduction of the Standard Maritime Vocabulary, and by the requirement for a common language to be used in ship operations under the Convention of Standards of Training, Certification and Watchkeeping (STCW 1995).

The most difficult communication problems which arise are with the levels of understanding of English between ship and shore under critical conditions between ship and shore in close and congested circumstances when there is little time or space to rectify initial misunderstanding and in passing orders between different language speakers on the bridge of a vessel and during emergencies. But it is not only a problem of language. There are cultural differences in a mixed crew which involve different meanings and emphasis given to the same words and ways of communication which also cause friction and accidents.

Cultural differences have become particularly apposite in the high diversity of groups on board a modern vessel. There are no longer the tacit rules of behaviour which once guided the more homogeneous crews. When for example a traditionally crewed vessel was at sea, with say a British crew, there were ways to avoid friction. Certain topics were generally avoided in the messroom and saloon such as politics and religion. Conversations would centre on safe subjects including sport, sex, music, the next port, the last ship and occasionally between friends, their home concerns.

On mixed crew vessels there may not be a community of interests in even safe subjects except within small groups which congregate to talk in their own language. Similarly, when there are frictions and grievances the seafarers have to explain these to others in a language which is not their own.

The MARCOM report considers all of these aspects in a holistic way. The present report is a summary of the more detailed “deliverables” transmitted to the European Commission DG VII section (Waterborne Transport) over the two years of the project. The MARCOM project was financed by DG VII with the overall objectives of improving communication among multicultural and multilingual crews. Its main objective is to recommend improvements in communication skills on the bridge. To do this the project aims are to;

- Assess the value of a single working language which could be used in all circumstances.
- Make a linguistic analysis of ship to ship and ship to shore communications
- Produce guidance on the use of language in emergencies and accident prevention.

- Analyse the incidence and causes of cross cultural tensions on board and their current management.
- Evaluate present standards of teaching communication skills in maritime colleges and produce a pilot syllabus that responds to new regulation and current thinking.

The specific objectives of this report (Vol 1) are twofold - To provide an understanding of the significance of communication in the multicultural and linguistically diverse ships of today and to provide English language teachers (who are generally not mariners) of "maritime English" with detailed information on the nature of on board use and misuse of language and the types of accidents which can result. This provides the realistic basis for the use of volume 2 of the report on education and training procedures.

In volume 1, chapter 1 opens the report with a study of language and misunderstanding from a sociolinguistic point of view. The failure of communication is covered along with cross-cultural awareness and pragmatic failure.

Chapter 2 gives examples of accidents that involve multilingual communication lapses both under pilotage and in open seas. Ship to shore communication incidents are included along with those occurring on board.

Chapter 3 covers a survey done among shipmanagement companies to discover to what extent cultural and language aspects influence their choice of crews. They were surveyed by questionnaire and personal interview and encouraged to give their views and experiences.

Chapters 4 and 5 deal with observations made aboard vessels under pilotage. This is an area in which misunderstandings can be particularly dangerous as the operation involves not only the ship but those on board and ashore. Chapter 4 covers on board observations by a researcher while chapter 5 analyses data collected from the pilots themselves.

Chapters 6 and 7 are concerned with ship to ship and ship to shore communication respectively. These subjects have been separated to allow VTS communications to be considered as a separate item.

Chapter 8 moves away from the more official and professional forms of communication to study communication at the social level. It is a study of how crew members talk among themselves and looks at some aspects of their social lives aboard ship. A good deal of data is taken from a Mori poll that was sponsored by the ITF.

Chapter 1

Language and Misunderstanding

“Miscommunication 99”

Introduction

Language is inseparable from culture, and what might at first appear as a case of purely linguistic "miscommunication" is often embedded in a distinct cultural perspective. In this introduction, we shall summarise a sociolinguistic position on miscommunication and problematic talk, which might be of benefit to a study of communication breakdown among any group of people marked by linguistic and cultural diversity, such as seafarers,

As Coupland et al (1991: 16) have observed, the concept of miscommunication resists any simple definition. However, it remains a commonplace that reports of "things going wrong" in communication are particularly frequent in cross-cultural encounters, and their consequences can be extremely serious. There are often mismatches in the ways different communities attribute meaning to linguistic forms, or, indeed, to silence.. "Even cultural *beliefs* about the function of talk and silence can be a major source of communication difficulties" (Coupland et al. 1991: 5). Saville-Troike (1985: 11), a leading writer on the ethnography of communication, gives the following example, which took place during a period of military tension between Egypt and Greece:

Egyptian pilots radioed their intention to land at an airbase on Cyprus and the Greek traffic controllers reportedly responded with silence. The Greeks intended thereby to indicate *refusal* of permission to land, but the Egyptians interpreted silence as *assent.* The result of the

misunderstanding in this case was the loss of a number of lives when Greeks fired on the planes as they approached the runway.

It is in the pragmatic implementation of inter-cultural communication that recurring miscommunicative sequences are likely to occur, even if not always with the disastrous consequences encountered in the example given above.

Gumperz (1982) is a pioneer in the study of miscommunicative sequences stemming from different cultural norms of language use. Other writers have demonstrated how members of cultures that have a tendency towards emphasising "individualism" often interpret the group-centred orientations of "collectivist" cultures as openly hostile.

Generally speaking, analyses of miscommunication in intercultural settings concern themselves with the relative degree of "communicative competence" that exists in either or both participants. *Communicative competence* here refers to appropriate social skill, rather than as the achievement of competent relationships. As Coupland et al. have noted:

Communicative competence is . . a constraint on communicative adequacy, whether to do with very minor considerations of fluency (e.g. slips of the tongue) or levels of syntactic and pragmatic proficiency (e.g. in a second language). On the other hand, it is clearly wrong to associate cross-cultural interaction with inevitable “communication breakdown". In cross-cultural and cross-code settings, for example, it may be that communicative problems that are analysable linguistically may be deemed unimportant because (a) they are often easily identified and remediated'. (b) the deficiencies are attributable to language or language-knowledge itself (rather than to grosser incompetence or malevolent intent); and because (c) language differences may in turn be attributed to "cultural difference." Also, (d)

participants may have lower initial expectations of cross-cultural interaction, with the consequence that talk itself may be restricted to particular topics or modes that are mutually selected to be manageable (1991: 6).

Where talk, by necessity, *is not* "restricted to particular topics or modes that are ... manageable", we are likely to encounter some variety of problematic talk or miscommunication. It is this contingency that is most relevant to any discussion of multicultural or multinational environments. With this is mind, a broad overview of miscommunication will follow, including examples from a variety of contexts and situations, and drawing on the literatures of the social psychology of language, sociolinguistics and the ethnography of communication.

1.1 Miscommunication and pragmatic failure

In this section, we will review several studies which deal specifically with miscommunication and pragmatic failure, especially with reference to cross-cultural communication.

Miscommunication abounds in interactions between non-native speakers of a language, as well as between native speakers (NS) and non-native speakers (NNS). Gass and Varonis (199 1) argue that it is necessary to go far beyond an analysis of the purely linguistic features of phonology, morphology, syntax and prosody in order to consider the pragmatic and sociocultural dimensions of a given interaction. They cite culturally specific rules of discourse (Labov and Fanshel, *1977),* politeness (Brown and Levinson, *1987),* conversational maxims (Grice, *1975,*. Keenan, *1976),* conversational inference (Gumperz and Tannen, *1979),* and patterns of interpretation (Tannen, *1981)* to support their argument that every interaction is dependent upon relationships of class, status, power and, solidarity.

Gumperz and Tannen *(1979)* argue that the more participants know about each other, the less the likelihood of serious miscommunication. When there is little in the way of shared background and interests (cultural, personal or linguistic) the more pauses are likely to occur for purposes of clarification of content or language. Again, Varonis and Gass *(1985)* have indicated that the progress of a conversation between two NNSs will depend upon the amount of shared background.

Thomas *(1983)* introduces the distinction between misunderstandings at the level of *linguistic competence,* i.e. failure to understand which proposition S has expressed (see Example 1 below), and misunderstandings at the level of *pragmatic competence,* i.e. failure to understand the intended pragmatic force of the speaker's utterance (see Example 2 below).

Example 1

A: (To fellow passenger on a long-distance coach): Ask the driver what time we get to Birmingham.

B: (to driver): Could you tell me when we get to Birmingham, please?

D: Don't worry, love, it's a big place - 1 don't think it's possible to miss it!

Example 2

A: Is this coffee sugared? (Intended as a complaint. Gloss: 'As usual, you've forgotten to sugar it!')

B 1 don't think so. Does it taste as if it is? (Interpretation: request for information)

Pragmatic failure occurs on any occasion on which H perceives the force of S's utterance as other than S intended s/he should perceive it.

(Excluded from the above definition are *blurts, pragmatic idiosyncrasies, and flouts)).*

Two main types of pragmatic failure are frequently made by foreign language speakers:

a. **Pragmalinguistic failure:** the pragmatic force attached to a given utterance is systematically different from the one usually assigned to it by native speakers or, when speech act strategies are inappropriately transferred from L1 to L2 (e.g. the use of *konesno* by Russian speakers of English; degree of directness/indirectness felt necessary in a polite request, Polish English invitation to sit down: Sit! Sit! Sit!).

b. **Sociopragmatic failure** results from the differences in the beliefs of what constitutes 'good communication'.
   • Taboo violation
   • Indirectness
   • Gossip
   • Negative reactions to formulaic language:

A good illustration of sociopragmatic failure is offered by Wolfson (1981: 10): "For years 1 had been struck by the comments made by foreign learners of English to the effect that the Americans they met were insincere. Numerous grievances were cited, but one which recurred very often had to do with the problem of invitations. Non-native speakers were often furious at imagined slights when Americans made promises to invite which they never fulfilled, or repeatedly suggested social arrangements and then never followed them up".

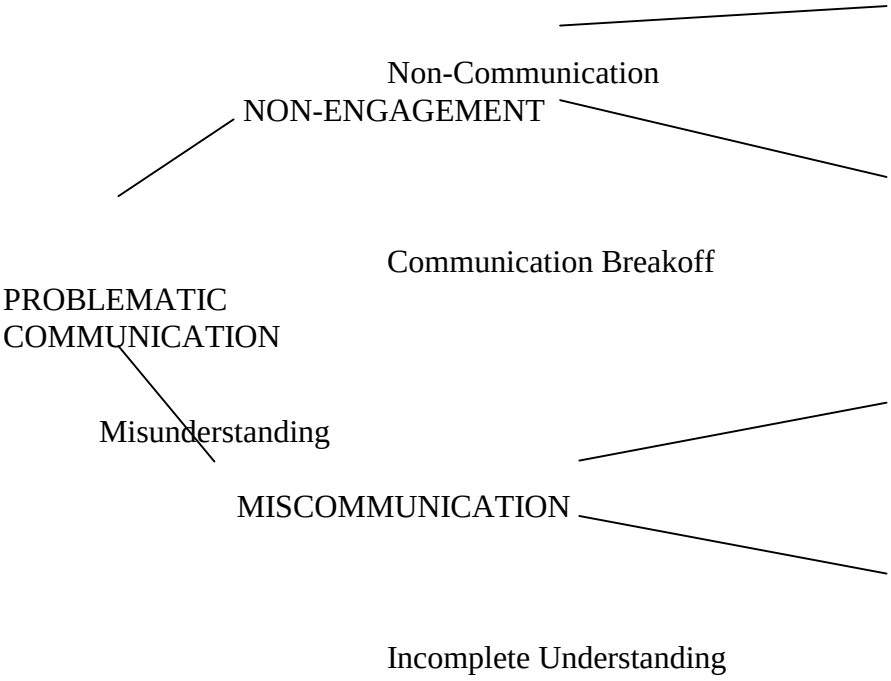
Likewise, Holmes and Brown (1987: 524) have observed that "New Zealanders tend to feel that Americans pay far too many compliments and, judging by their own norms, assume that American compliments are often insincere".

Jaworski (1994) has noted that many Polish students of English fail to accept the pragmatic force of the simple English greeting 'How are you?'. Many responses to such a greeting recorded by the author in an examination situation indicate students' failure to respond adequately, for example:

Q: *How are you?*
1 . [student does not respond]
2. Eh?
3. Well, before 1 answer this question [i.e. 'How are you?'] I'd like to make a little introduction. Why do people always ask these questions: How are you? How are you doing? etc.
4. Fine. What should 1 say?

Gass and Varonis (1991) offer the following taxonomy of problematic communication in native/non-native encounters:

Fig 1.1



NON-ENGAGEMENT

a) Non-Communication: avoidance, very difficult to study systematically (how do you study something which does not occur?).

b) Communication Breakoff: Abrupt termination of conversation.

MISCOMMUNICATION a) Misunderstanding

NS: When 1 get to Paris, I'm going to sleep for one whole day. I'm so tired.
NNS: What?
NS.. I'm going to sleep for one whole day.
NNS: One hour a day?
NS: Yes.
NNS: Why?
NS: Because I'm so tired.
Luis. 1 want to ask you about something'.
NS [teacher]:Yes, Luis, what is it?
Luis: I don't understand about urinals (Journals intended)
NS .. What is it you don't understand with them?
Luis. I don't understand what you're supposed to do with them.
(Source: Varonis & Gass 1985)

Sociocultural Miscommunication may occur due to pragmalinguistic failure triggered by pragmatic transfer from Ll. Grammatical Miscommunication (pragmalinguistic failure due to linguistic transfer) Transfer of grammatical features of one's language into L2 may result in miscommunication and negative stereotyping of non-native speakers.

1.2 The Filipino nurses murder trial

During one summer there were an unusually large number of cases of respiratory arrest at the Veterans Administration Hospital in Ann Arbor, Michigan, where two Filipino nurses worked. It was, furthermore demonstrated that one or the other (or both) were on duty during the time of each of these suspicious deaths. They were accused

of injecting intravenously into each of these patients a muscle-relaxant drug (Pavulon). The motivation, it was claimed. was to draw attention to the hospital and the difficult conditions under which they worked. The evidence presented was only circumstantial. Why then did the jury arrive at the guilty verdict?

In newspaper reports published after the trial, it appeared that the nurses' credibility was severely damaged by discrepancies and inconsistencies between reports of witnesses and the nurses' own reports. Naylor in her report argues that the difficulty was largely linguistic. She set out to see what factors were responsible for the lack of credibility of these two nurses.

Naylor attributes the specific difficulty of tense/aspect distinctions in the native language compared to those in the target language. In Tagalog, the native language of the two women, there is a rich system of aspect with tense not being marked on the verb. For example, "is eating" and "was eating" are expressed by a single form. A major distinction made in Tagalog is between an action that has begun and one that has not begun..

kakain "will eat - an action that has not yet begun

kumakain "cats/is eating/was eating" These two are actions kumain "ate/has eaten/had eaten" that have begun. They are distinguished by whether or not the action has terminated.

How likely was the use of English by these two women to have been misinterpreted by native speakers of English?

Q: Would you say that the two of you were close friends during that period of time?

A: 1 would say we *are* good friend, but we are really not that close because 1 *don't know* her and we *don't know* each other that much.

What the respondent apparently intended to say was that they were not good friends before they were accused, but that having gone through the experience of the trial, they had since become close. Yet, she chose only the present tense, which makes this statement appear internally contradictory, as well as contradictory to her prior testimony in which she had stated that they had become close friends during the trial.

Evidence for the fact that the Filipino nurses were using their native language aspectual system as a basis for interpreting and hence producing the English system is given below..

Q: Weren't you a relief supervisor for about six, seven months?

A: 1 think 1 started in December of *'74.*

Q: *'74* until about June of *'75?*

A: Yes.

Q: So, are you saying that some time during that time you learned about Pavulon?

A: Yes.

Q And what else did you learn about Pavulon, other than it was given at surgery?

A Are you asking me about what 1 know about Pavulon in the summer of *'75* or what 1 know about Pavulon at the present time, after hearing all these experts?

Q What you knew about Pavulon at the time.

A: 1 know a little about Pavulon.

Q : What did you know about it?

A: 1 know it's used in anaesthesia.

Q: Why? Or, what else do you know about it?

A: When I work in ICU, 1 learn that it's used to a patient to relax. It's a muscle relaxant. The patient should be on respirator and it should be ordered by a doctor.

There is obviously some confusion on the defendant's part as to the time frame which is being asked about. Even after this is explained and it is clear to her that the prosecutor is asking about the time during which the deaths occurred, she continues to use the present tense form to talk about past actions. This is so despite the prior "model" of a past tense form in an earlier line. As Naylor says, "she appears to read 'did you learn' as *have you learned,* thus missing the tense cue for the narrative discourse and failing to contextualize correctly into the discourse set established by the preceding dialogue" *(1979: 9).*

As Naylor points out, a listener (i.e. the jury) hearing the testimony in English is unlikely to realize that there is a linguistic problem. Rather, he or she hears the responses as inconsistencies, at best, or contradictions or lies, at worse. A linguistic mismatch frequently goes unrecognized as such and in this case resulted in the tragic conclusion that these women were guilty.

In another study Varonis and Gass (1985) describe an example of a conversation between NNS and NS where misunderstanding can be attributed to the NNS's problems with the control of the linguistic code and the mismatched goals between the NS and NNS.

Of course, what may appear as cross-cultural or cross-linguistic misunderstanding can be attributed the factors of power and unequal relations between participants (see, for example, Thomas 1984, 1985).

1.3 Culture shock

Encounters with cultural and linguistic systems radically different from one's own and inability to cope with the communicative and environmental conditions of life in non-native context may lead to *culture shock.* Some simple examples of anxiety building behaviour are:

when to shake hands what to say when meeting people when and how to give tips how to buy different goods when to accept and when to refuse invitations when to take statements seriously and when not

It has been suggested (Clarke, 1976: 379) that the person in a state of culture shock undergoes experiences which in certain respects parallel those of the schizophrenic (see also Gwyn 1991: 22-25). This argument is based on Bateson's (1972) concept of the Double Bind, whereby a person "cannot win" whether s/he opts to act in one of a number of possible ways, or whether s/he chooses to do nothing at all. In a sense, as Clarke points out, every relationship that a foreigner has in a host country is an *intense* one. Difficulties of communication with a taxi-driver, for example, might "combine . . to give a simple ride across town Kafkaesque proportions which cannot be easily put into perspective by the person who has suffered them" (1976: 380). In such cases the visitor often resembles the schizophrenic who is unable to discern what *kind* of a message a given message is; who, in other words, is bereft of metacommunicative skills.

When a foreign visitor remains abroad for an extended period of time, his/her inability to cope with the local scene may lead to hostile and aggressive behaviour. The troubles may be quite genuine:

- house troubles
- transportation troubles
- shopping troubles

People in the host country are largely indifferent to these troubles. They may be helpful but they don't understand the visitor's great concern over these difficulties. That's why they are perceived as insensitive and unsympathetic to the visitor and his/her worries. The resulting attitude may be to dislike the host: 1 just don't like them". The

visitor clusters with other ex-patriates from his/her country of origin, stereotyping the hosts as (e.g.) "dollar-grabbing Americans", "supercilious French", cc excitable Italians", "conniving Arabs", "bossy Germans" or "indolent Mexicans". Overcoming this critical stage is the only way for the visitor to be able to live in the host country.

Succeeding in learning the language and customs of the host country helps in overcoming the frustrations and allows gaining understanding of the system. If this happens, criticisms and complaints about life in a host country are replaced by joking. Finally, full familiarization with the host culture may lead to total adjustment and acceptance of the host culture.

1.4 Cross-cultural awareness

Hanvey (1979) describes a four-stage model of overcoming culture shock and reaching cross-cultural awareness. According to the author this can be attained only over an extended period of time and when the visitor shows respect for and participates in the host culture. Cross-cultural awareness will be denied to tourists (lack of participation due to time limitation) and colonial administrators (lack of respect).

Four levels of cross-cultural awareness:

I

Information

Awareness of superficial or very visible cultural traits: stereotypes

Mode

Tourism, textbooks, National Geographic

Interpretation

Unbelievable, i.e., exotic, bizarre

II

Information

Awareness of significant and suitable cultural traits that contrast markedly with one's own

Mode

Culture conflict situations

Interpretation

Unbelievable, i.e., frustrating, irrational

III

Information

Awareness of significant and subtle cultural traits that contrast markedly with one's own

Mode

Intellectual analysis

Interpretation

Believable, cognitively

IV

Information

Awareness of how another culture feels from the standpoint of the insider

Mode

Cultural immersion: living in the culture

Interpretation

Believable because of subjective familiarity

Can negative perceptions of other people be modified in a learning situation? Robinson (1988) suggests a social learning theory approach geared at this aim. The practices of language educators and crosscultural trainers tend to reflect the idea that prediction or anticipation of what is to come can help cushion culture shock, even if what is to come is perceived as negative differences. For example, Seeley in *Teaching Culture (1978)* asserts that crosscultural understanding will take place as students learn *what* to expect in

certain circumstances and *why* it is reasonable from the target society's point of view. Hence, even seemingly negative behaviours, such as eating snakes, being continually touched, or not keeping a promise should be better tolerated.

Robinson presents a different perspective. He suggests that predictability of a target cultural event, based on knowledge alone, may actually increase negative perceptions unless the learner has mastered the skills to cope with the event. Psychological research suggests that predictability of an event perceived as negative may cause greater anxiety than no predictability at all. That is, awareness that a bad thing is going to happen may cause greater anxiety than no prior knowledge, if the perceiver has not learned to cope with or control the event. Without the learner's confidence that 1 can cope with it," the learner may put up greater defences and fight the event to avoid it altogether. Both are results of feeling inadequate to deal with the known, predicted differences.

Overcoming something negative or feared about another person or cultural event is, in a sense, like getting over a phobia. It involves behaviour modification. Social learning theory offers approaches to coping with events perceived as negative which may be useful to second language and crosscultural education.

1.5 Predictability: culture shock or culture cushion?

Experimental studies with rats and human volunteers indicate that general predictability of negatively-perceived events will not make these preferred over unpredictable ones. Information about upcoming negative events can be very stressful. Knowing a bad thing is to come and not knowing what to do about it may be akin to learned helplessness". An American man in Guatemala:

You see all these people? They're all my wife's relatives. And every damn one of them has kissed me tonight. If another Guatemalan man hugs and kisses me, I'll punch him right in the face (Seeley 1978).

Helplessness is defined in terms of the uncontrollability of probable events. Foreign language students, Peace Corps volunteers, and language minorities in bilingual classrooms may experience a sense of learned helplessness in target cultural situations, real or simulated.

In a study of foreign-language students, American college students attending a sixweek French summer school were examined for their feeling of *anomie* (a feeling of social alienation, of not belonging to a cultural group) and authoritarianism at the start and end of the course. Elementary language and advanced language level groups were included. The students, who had promised to speak only French, reverted to English towards the end. Anomie also *increased* for both groups at the program's end. The researchers (Lambert and Tucker 1972) suggest that increases in anomie reflected increases in social dissatisfaction.

Many Peace Corps volunteers have enthusiastically gone to the field, only to leave frustrated and anxious. The following is an account of such volunteers in the Philippines.

The volunteers often expressed extreme frustration and sometimes hostility because it became obvious to them that the tasks which they came to accomplish so earnestly did not matter to the Filipinos (Fuchs 1967).

T*ypes of* coping *strategies:*

1 . fight - taking direct action against the situation.,
2. flight - escaping the situation;

3. benign reappraisal - reinterpreting the situation as less threatening.
The first two strategies are accompanied by negative emotion. Only the third actually reduces the negative emotion.

“Autonomous" versus "Collectivist "

Research by Riley *(1988)* at CRAPEL, a senior language teaching centre in France, investigated how students from different cultural backgrounds had vastly differing understandings of, and capacity to handle, autonomous study (i.e. study not directly supervised by an instructor).

The students were asked to develop a questionnaire on 'The French Way of Life'. The experiment was conducted among Danes, Americans, Moroccans and Vietnamese. The results varied from, at one extreme, the Danes, who were accustomed to a learner-centred approach, and to being encouraged towards autonomous study, to the Vietnamese, at the other extreme, who refused to acknowledge that different individuals could make use of identical material in different ways: so much so that "individual needs" were termed "subjective" and "socially irrelevant":

In one long discussion with the group, the ideas of autonomy and self-direction were classified under the heading "spiritual life" along with "walks in the forest and "philosophy". (Riley, 1988: 25)

Between these poles lay the Americans, who, although declaring themselves to be in favour of autonomy and self-directed learning schemes, in fact required considerable explanation and guidance; and the Moroccans, who opposed the project from the start, saying the quantity of work was far too great, that they would never be able to do similar work back home, and who agreed almost unanimously that

"initiative, activeness and ambition were anti-social traits, closely akin to egotism" (Riley, *1988:25,* see also Gwyn, *1991: 39).*

Negative Reactions:

American students of Japanese may react negatively to a breakfast of raw egg and seaweed. A negative physiological urge may be accompanied by an evaluative "ugh" (whether verbalized or not).

A British student of Italian may respond similarly to a conversation with a native speaker which is louder, spatially closer, and more personal than what s/he is accustomed to. The behavioural reaction of the American in Guatemala cited earlier included a desire to physically punch the next greeter.

Positive reinterpretation:

- seek empathy with the members of the local culture;
- look for positive outcomes of the situation.
- come to the new culture prepared with extensive knowledge of its customs, communication patterns, at least rudimentary knowledge of the language (books, video films, meet people from the country you want to visit before you go there, talk to others who have already been to the place),.
- take a course in intercultural communication (role play).

As early as in 1960, Hall and Whyte (1960) warned against the confusion between the lay conceptions of culture and more in-depth interpretations. For example, the way people dress, the beliefs they hold and the customs they practice can be misinterpreted and misleading in assessing situations in crosscultural contact:

- Uniformity in dress need not guarantee uniformity in action.

- Knowledge of beliefs may be insufficient to comprehend someone's actions as the connection between beliefs and actions is seldom obvious.

- Customs provide more guidance, providing we do not limit ourselves to the esoteric and also search for the pattern of behaviour into which a given custom fits. The anthropologist, in dealing with customary behaviour, is not content with identifying individual items. To her, these items are not miscellaneous. They have meaning only as they are fitted together into patterns.

1.6 Intercultural Miscommunication

In assessing a crosscultural situation it is not enough to discover the ways of how people act when they are among themselves, but also how they act in relation to outsiders. The link between two cultures is provided by acts of communication between their members. If communication is effective, then understanding grows with collaborative action. If communication is faulty, then no book of knowledge of culture can assure effective action. This is not to devalue the knowledge provided by anthropologists. It is only to suggest that the point of implementation of the knowledge must be in the communication process. Let us therefore examine the process of *intercultural communication. Two* aims are important here:

- Broaden knowledge of ourselves by revealing some of our own unconscious communicative acts.
- Clear away heretofore almost insurmountable obstacles to understanding in the cross-cultural process.

We also need to go beyond verbal communication. Culture affects communication in various ways. It determines the time and timing of interpersonal events, the places where it is appropriate to discuss

particular topics, the physical distance separating one speaker from another, the tone of voice that is appropriate to the subject matter. Culture, in this sense, delineates the amount and type of physical contact, if any, which convention permits or demands, and the intensity of emotion which goes with it. Culture includes the relationship of *what is said* to *what is meant - as* when "no" means "maybe" and "tomorrow" means "never". Culture too, determines whether a given matter - say, a business contract - should be initially discussed between two persons or hacked out in a day-long conference which includes four or five senior officials from each side.

With regard to the *display of emotions,* the Anglo-American tradition is that of preserving one's calm. Typically, a North American is taught by his culture to suppress his feelings. In the Middle East it is otherwise. Where the open display of emotion is normative, the modulated, controlled Anglo-American type is likely to be regarded with suspicion - he must be hiding something, practising to deceive. Conversely, exuberance and overt emotionality is likely to disturb the Anglo-American, cause him to writhe inwardly with embarrassment - for isn't this childish behaviour? And aren't things getting rather out of hand?

How loudly one should talk? According to Hall and Whyte (1960), in the Levant and Middle East, men attain a decibel level that would be considered objectionable in Northern Europe or the United States. Loudness connotes strength and sincerity in Eastern Mediterranean cultures; a soft tone implies weakness or deviousness.

In Northern Europe and the US *physical contact is* discouraged, particularly between adult males. The most common physical contact is the handshake and, compared to Europeans, Americans use it sparingly. However, in Latin America the handshake is the most detached and impersonal form of greeting or farewell. Somewhat more friendly is the left hand placed on another man's shoulder during a

handshake. Definitely more intimate and warm is the "double abrazo" in which two men embrace by placing their arms around each other's shoulders.

Apart from these ritualized forms of touching, there are other form, which are especially difficult to accept by Anglo-Americans in Latin America: e.g., hand on one's arm during conversation. To the North American this is edging toward what in his culture is an uncomfortable something - possibly sexual - which inhibits his own communication.

Punctuality is perceived differently in North America and Latin America: a 45 minute delay in coming to a business meeting is not an insult in Latin America, but a 5 minute delay in North America is.

Business talks - in the U.S., participants will try to get to the point and find an agreement. In business talks in Latin America and Greece the length of conversation manifests involvement and "good faith". In America "good faith" is manifested by ignoring the detail: "Let's agree on the main points. The details will take care of themselves. "

*Visiting - G*eorge Coelho, a social psychologist from India, gives an illustrative case (in Philips 1976). A U.S. Businessman received this invitation from an Indian businessman: "Won't you and your family come and see us? Come anytime." Several weeks later, the Indian repeated the invitation in the same words. Each time the American replied that he would certainly like to drop in - but he never did. The reason is obvious in terms of the U. S. culture. Here "come any time" is just an expression of friendliness. You are not really expected to show up unless your host proposes a specific time. In India, on the contrary, the words are meant literally - that the host is putting himself at the disposal of his guest and really expects him to come. It is the essence of politeness to leave it to the guest to set a time at his convenience. If

the guest never comes, the Indian naturally assumes that he does not want to come.

1.7 When to talk and what to say: Conclusion

Miscommunication may also result from the differences in conversational style (Tannen 1986). There are various levels of differences on which cross-cultural communication can falter (Tannen 1984). People perceive silence when they think there could or should be talk. If two people are sitting together, one may think there's a silence when the other does not. Scollon (1985) points out that Athabaskan Indians consider it inappropriate to talk to strangers, and that this has an odd effect when an Athabaskan meets a non-Athabaskan, white or black. One wants to get to know the other by talking, and the other feels it is inappropriate to talk until they know each other. The result of this kind of difference is cross-linguistic stereotyping. Non-Athabaskans conclude that Indians are sullen, uncooperative, even stupid, because they don't talk in situations where the non-Athabaskans expect them to talk. And, on the other side, Athabaskan Indians have negative stereotypes of non-Athabaskans as ridiculously garrulous and also hypocritical because they act as if they're your friend when they are not. Similar pattern is observed between New Yorkers and non-New Yorkers in the United States.

Miscommunication frequently results from differences in interactants' conversational styles. Every utterance consists of the meanings of words and the metamessage of style. Different cultures place different emphases on matters of involvement and independence, another facet of the double-bind of communication (see above). For example 'small talk' is perceived in opposition to information exchange; imposition as antagonistic to indifference. Conversational signals and devices are many and culturally 'loaded': consider, for example pacing and pausing ('wait time'); loudness; pitch and intonation; asking questions; ritual

complaining; offering and accepting apologies. Directness and indirectness are perceived very differently in distinct cultures, as are telling the truth *(which* truth?), honesty and politeness. Cross-cultural interaction will retain its potential for conflict only as long as cultural and linguistic differences *per se* are treated as grounds for anger and resistance, negative stereotyping, and educational and workplace underachievement

In the context of seafaring many of the examples given in this introduction will find correlatives. Because many problems of communication are culture-based, they are not easily resolvable. Face-threatening behaviour (a seafarer humiliated in front of colleagues by an officer). violence; inappropriate laughter. superstitions (e.g. belief in ghosts); perceived incomputability - any of these might act as a source of conflict or cause misunderstanding or communication breakdown.

Chapter 2

Examples of Accidents Involving Multilingual Communication Difficulties and Cultural Diversity

Introduction

Having considered the sociolinguistic characteristics of language and misunderstanding in the last chapter this chapter gives details of shipping accidents in which those misunderstandings have taken place presented according to the circumstances in which they occurred i.e.:

1) On board manoeuvring of the vessel under pilotage

2) External communication ship to shore and ship to ship

3) Inability to read instructions

4) The cultural dimension

5) In emergency situations

2.1 On Board Manoeuvring Under Pilotage

This is one of the most critical areas when it comes to clarity of communication. During a pilotage operation there is often no time and no searoom in which to rectify an error which has arisen due to misunderstandings of engine or helm orders or if tug orders or other information are not clearly understood.

Several reports have emphasised that safety is compromised where pilots are unable to communicate effectively with the crew. Such problems lead to increased pressure on the pilot as well as a reduction in the bridge officer's effectiveness. For example from 1975 to 1996 there were at least 24 incidents in Canadian pilotage waters in which problems with language and communication led directly to an incident occurring (a, 1996; MCB, 1997)

The issue has already been highlighted by recent witnesses to the US House of Representatives sub-committee on Coastguard and Maritime transportation who have suggested that English language difficulties are posing problems for US pilots. The types of problems raised "poor or non existent English speaking capability of master and bridge crews on foreign flag ships" and "situations where a captain cannot communicate effectively with the helmsman or other crew members on the bridge" (b, 1977)

Pilots very often perform their pilotage in their own mother tongue. This means that the radio communication to shore based parties is established in a language unintelligible to the master or officer in charge. Therefore, the master or officer very often has no choice but to follow the recommendations. This can be dangerous because the pilot does not know the manoeuvring characteristics of the vessel the way that the ship's own staff do. This circumstance has already caused accidents, e.g. the collision of the Polish ship Stanyslaw Kulcinsky with the Kattwykbridge on the river Elbe in 1991 when German pilots under shore based radar assistance during fog, were speaking in German only, a language not understood by the Polish master. The recommendations in English for the manoeuvres were given too late. The master can only gain his own impression of the situation if communication on his bridge is established in a language that he understands. In this case English would have been the language most useful to him.

Misunderstandings of instructions can often place a vessel in a dangerous position. The following incidents highlight the fact that situations that may at first be under control can easily develop into high stress scenarios with an accident the final outcome.

Ship grounding during berthing

The ship was a small coasting vessel with a crew of five, German being the predominant language, but the Master speaking English. During berthing although the stern rope messenger was sent ashore the pilot was not made aware of the fact. With only the head rope apparently taking the strain there was a danger of breaking loose so the pilot ordered the ship to be let go so that it could drift. While the vessel was

drifting further difficulties were encountered in manoeuvring, the result being that it grounded.

The pilot stated “I believe that poor communication was the real difficulty; many orders given by me were undertaken after several attempts, if at all. Had I been made aware of the stern rope messenger being ashore at my first pass, I would have ordered the ship to be pulled alongside with the capstan..... With a lack of a common language, and suggestions being turned into orders and vice-versa, things were made much more difficult”. (c, 1992)

Misinterpreting local instructions and dialects

Although two people may be speaking the same language, a local dialect or saying may be misunderstood or misinterpreted by someone who is not familiar with it. The following incident highlights such a situation, with a resultant accident that could have been avoided.

In this incident two ships collided in the River Barrow (Eire). A 1,500 grt cargo vessel was outward bound from New Ross while a motor tanker, in ballast around 2,000 grt was inward bound to the same port. The outward bound vessel had two pilots on board, the inward bound vessel one. The incident occurred in good visibility on a bend in the river.

Initially the inward bound ship had been under the control of the pilot. As the two vessels approached each other however the Master retook the wheel and requested the pilot to use the radiotelephone as he could not understand the local dialect or the local expressions being used by the cargo vessel pilot. The pilot told the cargo vessel pilot that he was going to keep to the port side of the river coming up, a starboard to starboard passing. The master was unaware of this arrangement and would have been opposed to such a manoeuvre if he had known about it. No instruction was given by the pilot to Master to effect a starboard to starboard passing.

Communication breakdown had therefore occurred between the Master and the pilots of both vessels, the opposing vessel because he could not understand the local dialect,

his own vessel because no clarification had been given to him and he had not sought clarification of the pilots intentions. The ships as a result collided

The Wealthy River - 1996

The WEALTHY RIVER, a Chinese ship, was under pilotage in a dredged channel outside the entrance jetties at Charleston Harbour, South Carolina, and approaching the Pilots disembarkation position. The American pilot indicated, as a matter of courtesy, that the pilot boat was alongside to port. The Chinese captain, who spoke very little English, misinterpreted this as a command to turn to hard to port, and ordered the helmsman to do so. The vessel, which had been in the centre of the channel, swung to port and proceeded towards the north edge of the channel. Before the situation could be corrected the ship had left the dredged channel and grounded almost immediately.

The passage had been taking place in the dark, the Pilot had been unable to see the helmsman turn the wheel to port and had been unable to understand the conversation between master and helmsman (Walsh, 1997; Anon d, 1996).

Seadaniel and Testbank - 1980

On 22nd July 1980 a Panamanian bulk carrier, the SEADANIEL, was inward bound in the Mississippi River Gulf Outlet (MRGO), while a German containership, the TESTBANK, was outward bound, both vessels with Pilots onboard. The channel that the two vessels were navigating was narrow and required them to pass quite close together. The SEADANIEL was manned by a crew of 33 of which the master and radio officer were British nationals and the crew were Chinese. The TESTBANK was manned by a crew of mixed nationals, but predominantly German.

Pilotage in the MRGO was compulsory for the foreign vessels involved, being undertaken by two pilot's associations, the Associated Branch Pilots (ABP) and the Crescent River Port Pilots Association (CRPA). The ABP conduct pilotage from the sea to 33 miles from the entrance and the CRPA then relieve the ABP and pilot the vessels to New Orleans. This was the pattern followed during this incident. When the

pilots were changing over they discussed various aspects of the ships' characteristics but as the ABP Pilot had not had any difficulty communicating with the foreign crew he did not discuss the language differences with the CRPA pilot.

The passage of the SEADANIEL continued without incident until the two vessels approached each other. As the ships were approaching, the orders given by the pilot on the SEADANIEL were not followed as accurately as he would have liked. This created a situation that resulted in the pilot raising his voice and the Chinese helmsman becoming upset and failing to understand the instruction given.

As the vessels approached each other the SEADANIEL took an unexpected turn to port due to an erroneous rudder response to the pilot's starboard rudder order. This resulted in a collision with the TESTBANK, raking her down the port side. The probable cause of the incorrect manoeuvre was the application of port rudder by the helmsman of the SEADANIEL when the pilot had ordered starboard rudder (NTSB, 1981).

The Bright Field - 1996

A miscommunication between the Pilot and the Master of the BRIGHT FIELD may also have precipitated a collision between the vessel and a quayside shopping centre on the New Orleans Riverwalk.

When the Pilot first boarded the vessel it appeared that the Master could understand him fully. Everything continued normally until a problem occurred with the mechanics of the vessel and when the Pilot queried the Master as to what the problem was he received no reply. As they approached the quay the order for full astern prior to the impact occurring, was not carried out, however with the little control that remained the Pilot managed to avoid a number of docked vessels.

The initial investigation into the accident focused on a number of issues including that of whether language barriers between the American River Pilot and the Chinese crew affected responses. The Pilot suggested that the Chinese master spoke only a 'kind of

broken English' and that he had not received any response to his commands to put the engine full astern, away from the riverbank (e, 1996).

Four Canadian pilotage incidents

During 1990 there were two incidents where ineffective communication between the Pilot and the Master had serious consequences. In July 1990 the ENERCHEM FUSION ran aground, due to problems in confirming the Master's intentions of taking over the conduct of the vessel from the Pilot. The vessel was carrying 8,000 tonnes of petroleum products and although a serious pollution incident was avoided the vessel was declared a constructive total loss. Similar problems in communicating intentions between the Master and Pilot resulted in the grounding of the LAKE ANINA, a Norwegian chemical tanker.

During 1991 two further incidents resulted from failures in the communication of intentions between master and pilot. The IRVING NORDIC grounded in the St. Lawrence River suffering structural damage, the lack of effective information exchange between Master and Pilot contributing to the accident. The Yugoslavian MALINSKA also ran aground because although both Pilot and Master had calculated the vessel's position neither had consulted with the other and the Master did not know the Pilots intentions (Ayeko, 1997).

2.2 Ship and Shore Communication

Vessel Traffic Services (VTS) are being used in waterways world-wide as a means of diminishing operational and environmental risk in maritime transportation (Young, 1994). Their functions include :

- Vessel traffic management, by an active and passive traffic organisation service.
- Visual and electronic aids to navigation
- Crisis management for search and rescue and pollution

- Information services including publications, radio broadcasts, navtext, satellite acquisition of safety and traffic data for commercial and military purposes and port state control implementation surveillance

VTS Centres monitor the traffic in many highly-frequented areas. They also give instructions and advice in critical situations. But VTS operators are also human beings and mistakes may occur in their analysis. It has to be taken into consideration that a VTS operator only has a restricted view of the situation. He can only follow the movements of the participating vessels on the radar screen. He does not know, for instance, the characteristics of the ships. Therefore it is difficult for him to give exact advice to avoid dangerous situations. Communication problems and neglect of radio calling procedures make the situation even worse. Due to communication misinterpretations accidents occur as the following examples show.

Insufficient Details from VTS

In May 1995 the German motorvessel „Aphrodite“ collided with the Maltese motorvessel „Anglia“ in the entrance to the port of Rostock (Germany). One of the reasons was that the VTS-operator did not inform the vessels involved sufficiently well about the traffic situation in the narrow entrance, it remains unclear whether this was due to a lack English skills or for other reasons.

Lack of English Skills

On board a ship with a multilingual crew a common working language has to be established. In most cases this is the English language but often not all members of the crew have the necessary command of this language. Thery have only restricted language skills of that generally accepted working language. Multilingual crews frequently consist of seafarers with very different language standards which prevent them creating a common on board language. Often there are different words for one term and even this can cause misunderstandings.

The English language has been the language of seafaring since the late 1960s. In international conventions, (e.g. STCW) basic standards have been laid down but not

accurately specified. However compared to STCW 78, the revision STCW 95 is clearer though not yet specific.

Many examples have been documented, e.g. the accident on the „Ever Obtain“. This Chinese vessel had engine trouble in the Red Sea. In order to obtain tug assistance Stavanger Radio was called via Inmarsat. The Stavanger Rescue Co-ordination Centre was unable to understand the English spoken by the officer on board the „Ever Obtain„. Only after the ship contacted its headquarters in Taipei, could assistance be rendered via the company. (See also below under Emergencies)

Lack of understanding with shore station via pilots

Pilots often perform their pilotage in their own mother tongue. This means that the radio communication to shore-based parties is established in a language which may be unintelligible to the master or officer in charge. Therefore, the officer or master has no choice but to follow the pilot’s recommendations. This is dangerous because the pilot does not know the manoeuvring characteristics of the vessel compared with the officers and master. This circumstance has caused accidents, e.g. the collision of the Polish MV „Stanyslaw Kulcinsky“ with the Kattwykbridge on the river Elbe in 1991, when German pilots under shore based radar assistance during foggy weather were talking in German only - a language not understood by the Polish master. The subsequent recommendations in English for the manoeuvres were given too late. In this, as in other instances, the master or officer in charge could not obtain their own impression of the situation as the radio communication with shore based parties was not intelligible to them.

Communication hampered by panicking radio-operator

External communication problems can also be caused by an officer or radio-operator in panic. When the Polish Ro-Ro Ferry „Jan Heweliusz“ capsized in 1993 near the isle of Ruegen the watchofficer at first gave a wrong position to the rescue centre, probably due to panic.

Similarly when the officers of Polish motorvessel „Boleslaw Krzywousty“ was ablaze and under heavy rocket fire from the Eritrean Coast of the Red Sea on 05th January 1990. The officers failed to radio their correct position although being repeatedly asked to do so by responding coast radio stations and vessels. The position they gave was not geographically possible and long delays resulted. (A voice record of this extraordinary event is kept at Wismar University-Germany, Dept. of Maritime Studies Warnemuende, Maritime Communications Section).

Disregard of specific instructions

Failure to act on the advice of vessel traffic controllers, in addition to a disregard for international collision prevention regulations, can in certain circumstances have catastrophic results. The following incident involved both factors, the result being the loss of a vessel and widespread pollution of an area of outstanding natural beauty.

Tuo Hai and Tenyo Maru - 1991

The central fact in this incident was that the TUO HAI sailed through a large concentration of fishing vessels operating in Canadian Exclusive Economic Zone waters and ignored repeated directives from vessel traffic controllers to change course. The visibility conditions were poor and the actions of the TUO HAI violated international navigation rules.

The TUO HAI collided with the TENYO MARU, a stern trawling fish factory ship carrying more than 450,000 gallons of bunker and diesel fuel, with the result that the TENYO MARU sank and 120,000 gallons of intermediate fuel oil were released together with 53,000 gallons of diesel oil. Oil continued to leak from the wreckage of the vessel for up to a year after the incident.

The report of the accident by the Transport Safety Board of Canada blamed the inability of the crew of the TUO HAI for failing to understand the Vessel Traffic Service instructions in English and that neither vessel was using the appropriate

collision avoidance procedures in dense fog (Anon f, 1993; Anon g, 1993; Anon h, 1994; Anon i, 1995; Anon j, 1995).

Seiko - 1993

The initial problems were that the SEIKO had a non English speaking Master, who was not in possession of up to date charts of the area. The problem for the Dover Coastguard was that, during heavy weather, they had to try and talk the ship into an anchorage off the south coast of England. Initially the Master altered course directly for the specified anchorage co-ordinates without taking into account the shallows between the SEIKO, and the anchorage. Considerable difficulty was experienced in passing the correct course to him, and the ships' owners were also utilised via a link call through North Foreland radio to achieve an effective contact. Ultimately the coastguard had to talk the vessel away from the coast and towards anchorage with the Wandelaar pilots.

Etilico - 1994

The central fact in this case was that a Spanish chemical tanker, the ETILICO, was not obeying the Collision Regulations as it passed through the Dover Straits and became involved in a close quarters situation with the OOCL BRAVERY. The Watchkeeping officer did not understand even basic maritime phrases such as “what is your position”. A short while later another close quarters situation occurred with an unidentified vessel, the estimated pass being between 100 and 400 metres. When the Master later came on the radio and found that he was in the wrong traffic lane the vessel changed lanes and almost collided with a major channel buoy.

2.3 Ship to Ship Communication Accidents

Ship to ship communications are open to many different types of errors involving a number of factors. Communication between ships in restricted waters is usually done for navigational purposes and so a certain degree of technical language knowledge may be required in order for the communication to be successfully achieved.

Intership communications may be dependent on ships having the ability to recognise one another. All to often the call "ship on my port side" is heard on traffic channels indicating that one vessel is trying to communicate with a specific vessel the name of which cannot be ascertained. Even if communication is correctly established there then follows the problem of the vessels understanding each other.

Some examples of ship to ship communication accidents are shown below :

MT Butt and Fishing Vessel

In July 1993 the German motor-tanker „Butt„ collided with a Dutch fishing vessel near the approach to IJmuiden. The fishing vessel was on the way to the fishing ground and had therefore set no additional fishing signals. The fishing vessel had to give way to the motor-tanker. Although the visibility was good the watchkeeper on the fishing vessel did not see the tanker. The watch-officer on board the tanker tried to call the fishing vessel several times on VHF channel 16 without a reply. After the collision it was found out that the fishing vessel did not use channel 16 and therefore manoeuvring agreements could not be made.

MV Achat and MV Oslo in collision, Oslofjord 1987

The German Achat collided with the Norwegian Oslo in Oslofjord in July 1987. The Oslo carried out a manoeuvre without giving notice to the Achat. The collision occurred despite the fact that a call or signal could nave averted the casualty.

In April 1985 the German motorvessel „Sangerhausen" collided with the Yugoslavian motorvessel „Grobnik" on the river Elbe close to the entrance to the Kiel-Canal. This

accident was caused by a mistake made by the pilots. The pilot on motor-vessel „Sangerhausen“ made some manoeuvre agreements with the supposed „Grobnik“ without checking if he had contacted the right vessel. He had mistakenly spoken to another vessel close behind the „Grobnik„. When he later on altered his course the collision happened.

Manoeuvre co-ordination with other vessel not regarded necessary

It is conspicuous that during the development of a collision very often no effort was made to ask the opponent about his intentions. The possibility of direct manoeuvre agreements is often not regarded useful, even when the officers on participating vessels speak the same mother tongue. Manoeuvre agreements seldom take place. The reason why can only be presumed. Of course, it has to be taken into consideration that in high frequented areas with restricted visibility it could be difficult to safely identify the collision opponent. Another reason are psychic barriers existing to contact an „invisible„ communication partner. Inexperienced officers therefore often shun to call unidentified vessels. Furthermore lack of language skills and adverse experiences may also prevent officers from contacting unidentified vessels.

Unfortunately, many watch officers do not sufficiently know their own ship and its manoeuvring characteristics. It may also happen that misjudgements occur when too small passage distances are accepted or the rate of turn is overestimated. Therefore the reason that a direct contact on radio to avoid a collision in due time was not made can base on poor language skills or lack of knowledge and experience with the ship as well.

In March 1996 the German motorvessel „Breitenburg“ collided with the Russian motorvessel „Vrissi“ close to Cape Bon in the Mediterranean Sea. Although the visibility was excellent and the traffic not that heavy the collision occurred. The Russian vessel normally should have given way to the „Breitenburg“ and the watchofficer trusted this rule. The Russian officer did not follow these regulations which caused the accident. By means of communicating shortly through VHF a simple

manoeuvre agreement could have been made in order to avoid the critical situation. Other examples are given in the annex.

Neglect of radio calling procedures

To be successful with direct manoeuvre agreements, it is essential that radio communication takes place according to international rules. In this connection an unambiguous identification of the communicating partners should be a must. How necessary this is, will be demonstrated by the following examples:

In April 1985 the German motorvessel „Sangerhausen“ collided with the Yugoslavian motorvessel „Grobnik“ on the river Elbe close to the entrance to the Kiel-Canal. This accident was caused by a mistake made by the pilots. The pilot on motor-vessel „Sangerhausen“ made some manoeuvre agreements with the supposed „Grobnik“ without checking if he had contacted the right vessel. He had mistakenly spoken to another vessel close behind the „Grobnik„. When he later on altered his course the collision happened.

A similar accident took place in April 1987 in the port of Wyk (Germany) between the German passenger vessels „Adler VII“ and „Nordfriesland“. Here, the agreements were made directly from ship to ship without pilot’s participation**.**

2.4 Written Instructions and Skills

Language difficulties linked to inadequate training can create situations which reult in serious injuries being incurred by seafarers. The norm today at sea is multi-national crewing of vessels, the ship will be built in one country and owned in another. Subsequent sales and purchases along with shifts in registration can result in problems of documentation and written instructions held aboard. Manuals and maintenance histories will be passed from owner to owner and may not be presented any language of those currently operating the ship. This situation has contributed to accidents both at sea and in port.

The sinking of the Honduras registered Alte Weser in the Great Belt, May 2nd 1995

The Honduras registered vessel „Alte Weser“ was sailing with a German master, a Lithuanian chief officer and a Polish crew. The Lithuanian officer could not speak English fluently. He did not understand the technical instructions for the operation of the navigation equipment of the vessel. That was one reason why he grounded the vessel in the Great Belt. The resultant sinking of the ship caused the death of the master.

MV „Anjola“ - Grounding near Juist Island (German Bight) - October 29th 1996

The Antigua and Barbuda registered vessel „Anjola“ grounded near Juist Island in stormy seas due to an engine break down. The Polish master and the Polish chief engineer could not read the German engine instructions from the German shipyard, dated from the time when the vessel was sailing under German flag. English manuals were not available. Due to misinterpretation the engine could not be restarted and the vessel began to drift and grounded.

MV „Westwind“ - Grounding at Alands Islands (Finland) - March 12th 1995

The Antigua and Barbuda registered vessel „Westwind“ was manned with a German master and a Polish crew. The crew was unable to understand the English language. Therefore the Chief officer translated all instructions into Polish.

In the inquiry into the grounding it was found out that the chart in use was not up to date. The German shipping company provided the vessel with German and English sea charts. The corrections for the German sea charts were carried out by the Polish chief officer because he was unable to understand German. His corrections from German caused several errors on the chart including the characteristics of the lights which caused the grounding.

One case reported in Lloyd's List, concerned a ship forced to seek salvage assistance in the North Atlantic. This was not because any critical situation had arisen but simply because "the ship's crew could not work the equipment, were unable to read the manuals and could not communicate with each other. (k, 1993).

Kayax - 1995 (In Port)

The KAYAX was a 23, 277 dwt Panamanian registered bulk carrier with a crew of 17, the Master being South Korean, the rest of the crew comprising of Indonesian, South Korean and Chinese. Day to day communication on the ship was conducted mainly in English together with gestures and sign language. The senior officers used their native language, Korean, to communicate between themselves.

The accident occurred in Portland, Victoria, Australia when an Australian MSA inspector was on board the KAYAX to conduct grain loading and Port State Control inspections. The surveyor requested, as part of the inspection, the lowering of the port lifeboat to the deck position and its return to its embarkation position at the davit head. In this position the surveyor asked for the lifeboat engine to be run ahead and astern. During this operation the lifeboat became detached and fell first onto the deck and subsequently 20 metres in to the sea.

The Korean master, Indonesian Second Mate, Korean oiler and Chinese ordinary seaman were in the lifeboat at the time of the incident and all were injured, the second mate sustaining serious head and spine injuries.

It was concluded that the crew who had entered the lifeboat initially (not the Master) were insufficiently practised in using the on-load release gear. While attempting to do so the on-load release mechanism was activated because the safety pin that would have prevented the release of the lifeboat's quadrant was not in position and the release system was in the armed condition.

The languages used in the instruction manual and on the notices inside the boat were inappropriate for the ships' crew, being only in Japanese and English. They were therefore unable to read them properly or communicate with each other. Difficulties

in communication between the crew members contributed to the accident. (Anon l, 1995; Anon m, 1995; Grey, 1995; MIIU, 1995)

MV Unitas - Death of an AB in main hatch in Mostyn, July 10th 1994

The German vessel Unitas was manned with German officers and Kiribati crew. The crew had not received work safety instructions in English and had insufficient information in English concerning the dangerous cargo. It was due to this that a crewmember entered a hatch although it was dangerous and forbidden. He was asphyxiated in the hatch and lost his life along with the chief officer who had gone in to try to save him.

2.5 Cultural Factors

The problems of misunderstanding due to differences in the interpretation of words and expressions between people of different cultures have contributed directly to accidents and indirectly in other ways. (See also Chapter 4)

The following are examples :

Insufficient verbal co-ordination between master and officers, officers and ratings

The second officer of an German chemical tanker manned with German officers and a Filipino crew gave orders to prepare the cargo handling equipment for loading chemicals. For this procedure it was necessary to open some valves. The instructions were detailed and clear. After he had given the orders the officer asked a crewman, whether he had understood and knew what to do. The seafarer gave an affirmative reply. Later he opened the wrong valves and was injured by mechanical parts moved by compressed air. The analysis of the accident showed that the man had had not understood what he was instructed to do. It was more of a cultural problem for him to

admit that he did not know what to do or to ask for a demonstration, this was aggravated by a lack English skills.

The collision on MV „Anjola“ referred to earlier can also be attributed mostly to a cultural problem. The Filipino chief officer thought that his German master would take over the command automatically once he came onto the bridge. This was not the masters' custom or intention. The chief officer did not ask the master if he was to continue with navigation and he did not inform him about a dangerous situation, as a result the ship collided with another vessel. This accident was not caused by lack of language skills but partially due to cultural and custom differences. For the master it was quite clear that the officer of the watch would continue with navigation as long as no other orders were given by him. It is noted that the „IMO-Standard Marine Communication Phrases“ expects the master in a case like this to inform the officer of the watch with the phrase : „I now take over the command.“ For the watchofficer, on the other hand, it seemed to have been implied that the master by being there, would take over the command. Cultural barriers avoided a clearing question to clarify the situation.

MV „Alexandria“ MV „Xin Hua 7“ - collision near Pusan (Korea) - June 30th 1995

The Liberian flag vessel „Alexandria“ approached Pusan. She had to give way the Chinese vessel „Xin Hua 7“. The Filipino chief officer did not continue with navigation when the German master entered the bridge although they did not talk to each other. The chief officer thought that the master would automatically take over command and did not alter the course. He also did not inform the master about the critical situation. This was the reason why the collision happened.

2.6 Under Emergencies

Operation of the vessel

In emergency situations involving the operation of a vessel it is important that crew members are able to communicate quickly and effectively, information vital to resolving such situations. The types of situation that might arise include fire and flood, and the following case illustrates the problems that can occur.

Scandinavian Star (a) - 1988

The SCANDINAVIAN STAR has been involved in two incidents involving fires on board. In the first incident in March 1988 the ship was on the Cozumel, Mexico to St Petersburg leg of a cruise. Approximately four hours into the voyage a fire started in the engine room, caused by an oil leak. The fire was observed by the motorman who was Honduran who then reported the fire to the watch engineer who was Filipino. The two men did not share a common language and consequently they had to communicate by hand signals. (Anon n, 1990)

While, in this case the language communication problem did not lead to any loss of life the signs that problems might occur existed. However, one of the recommendations of the National Transportation Safety Board of the USA was that SeaEscape (the Shipowner) should 'require that the officers and crew of passenger ships are able to communicate with each other and with a majority of the passengers' (Anon n, 1990).

Lines of Communication

Should an accident occur there may be problems in resolving the situation if language or communication difficulties exist between the various parties involved. Thus problems in the line of communication will be of concern.

Ever Obtain - 1993

The EVER OBTAIN, a 30,254 dwt ship built in 1983 suffered an engine room flood and loss of power during a voyage from Kaoshiung to Jeddah, which ultimately resulted in it having to be towed to Suez for engine repairs. The principal issue

arising from this incident was the breakdown in communication, despite the fact that the EVER OBTAIN had the latest Inmarsat approved satellite communication equipment on board.

When the EVER OBTAIN reported the incident to the Stavanger Rescue Co-ordinating Centre (RCC) they were "unable to understand the level of English spoken by the Radio Officer on board the ship". After the initial distress call had been received Stavanger RCC then tried to contact the EVER OBTAIN by Inmarsat and Telex but both methods were unsuccessful. The ship had to contact its own company headquarters in Tapei to request assistance which was initially provided by a US Navy missile destroyer, prior to the arrival of a Greek salvage tug.

Sea Empress 1996

The initial incident that led to the Sea Empress becoming grounded in Milford Haven was not due to communication failure. Concerns have however been raised as to the post accident events, one of which was apparently communication failure in the salvage operation. (Rood, 1996).

Communication between the salvor's liaison officer and the Master of the DE YUE was not a problem, although the media interpreted the situation as such at the time. Although the Master had no understanding of English some of the senior officers had sufficient knowledge of English for the correct procedures and requests to be followed. The reason the DE YUE was not utilised was not due to language problems but rather to differences in opinion as to how the tug should have been used (MAIB, 1997).

A problem did however occur in respect of the effectiveness of communication between the co-salvors and the other parties legitimately involved in the salvage operation. This is best explained by the official enquiry report which says:

"The salvors were well used to managing their own groups of staff and had effective communications within these groups. However, communications to others on board were, due to the numbers involved, somewhat less effective. This is no serious reflection on the workings of the salvors.....but it did result in many persons on board

feeling unsure of who was in charge. Recognising that each [supernumerary] had a counterpart ashore to whom he reported either in the form of an individual or an organisation, any deficiency in communications on board the casualty was amplified, possibly many times over....".

Failure to communicate with passengers verbally

When passengers are involved in a Maritime incident it is likely that there will be a range of languages being spoken. It is therefore important that the crew can clearly direct them in whatever action is required in order that injury and potential loss of life are minimised.

St. Malo

An accident involving the High Speed Ferry, the ST. MALO, was principally down to navigational problems with the craft being taken through an area outside of the prescribed channel. Once the accident had occurred however there were some reported language problems with an entirely French crew trying to evacuate a largely British and German passenger complement (Anon o, 1995).

Scandinavian Star (b) - 1990

The SCANDINAVIAN STAR had left Oslo for Fredrikshaven in an unfinished state of repair, with work still being carried out on board and many of the exits blocked. Due to an hurried preparation period prior to sailing many of the crew had not undertaken fire or lifeboat drill and many did not know their emergency number or duties.

Shortly after sailing an arsonist started three fires, the latter of which spread rapidly. Due to the lack of preparation and a lack of leadership from the ships' officers there was a failure to appraise the extent of the fire or number of people evacuated. Little attempt was made to deal with the fire and the crew generally acted individually rather than in a co-ordinated fashion.

Further, communication problems existed between the crew and between crew and passengers and emergency evacuation procedures were not passed in a language that

the passengers could understand. This was despite the fact that the ferry was running on a regular Scandinavian route. Thus passengers were only aware of the panic and confusion and not the underlying reasons and they were unaware of where the fires were, information that was essential for a safe evacuation. The crew had been hired on understanding that they spoke English but clearly did not and this failure was a significant factor in the high death toll of 158.

Failure to communicate with passengers in written form

Communication can also take place in written form and where passengers are involved it is important that any information necessary for their safety should be written in a language that they can understand, particularly if the crew do not speak their language.

Tallink - 1995

The TALLINK, a ro-ro ferry ran aground off the island of Suomenlinna near Helsinki shortly after leaving for Tallinn. While 1100 people were evacuated with only one passenger slightly injured a number of them complained that they could not understand the evacuation procedures that were given only in Estonian (Anon p, 1995)

Post accident problems

Incidents that may originally have originated due to unforeseen circumstances can be exacerbated if there is a failure in communication between those whose responsibility it is to try and resolve the problem. The following example clearly highlights what can occur where language problems exist.

Matilda Bay - 1997

The MATILDA BAY had been crossing the Great Australian Bight on a passage from Melbourne to Freemantle. The Chief Officer was Malaysian, the rest of the officers were British and the ratings were from the Philippines.

A repair team had been working forward trying to secure a detached booby hatch lid in heavy seas when a sea came over the forecastle head and knocked the team over and out of sight of the bridge. The Chief Officer who was leading the work team was

pushed under the windlass and severely injured, while the other team members were pushed onto the windlass but not injured.

A Filipino lookout had seen the sea come over and when the water cleared was unable to see the team members. He ran into the wheelhouse to report that a man had gone overboard but the watchkeeper was unable to understand what was being said. There was considerable confusion as to how many men, if any, had gone overboard and the ship was turned around to search for them before it was realised that all of the team members were still on board. The confusion lasted about 15 minutes and during this period the Chief Officer lay injured under the windlass. When the problem was eventually resolved he was taken to the sick bay but died of his injuries.

The chief officer had not informed the bridge of his intentions and none of the three men in the team were in contact with the bridge by radio. This in itself contributed to the accident as the master could have taken a safer course of action to allow the repairs to be undertaken. A further contributing factor to the confusion after the accident was the language difficulties, and this delayed the treatment to the Chief Officer. (Brewer, 1997; Anon, 1997)

2.7 Conclusions

Many of the incidents shown above indicate that the watchkeepers did not have a clear understanding of a common language

Watchkeeping officers are required to have a knowledge of written and spoken English adequate to be able to understand charts, nautical publications, meteorological information and messages concerning the ships' safety and operation. Their knowledge should also be adequate to communicate with other ships and coast stations and multilingual crew, and use IMO Standard Maritime Communication Phrases (ISF, 1995; IMO, 1996).

Following the implementation of STCW 95 a vessel should not be able to sail without the navigating and senior officers having an adequate knowledge of the English language in order to perform certain tasks and communicate with other vessels.

Further, under the STCW 95 regulations, the English language requirements not only apply to navigation watchkeepers but also to engineer watchkeepers who are required to demonstrate an ability to interpret engineering publications written in English. Clearly a ship operating with a crew that cannot undertake basic tasks not only contravenes STCW 95 regulations but also numerous other international safety at sea regulations (IMO, 1995).

Nowadays, it is usual for large oil and chemical companies to charter the better part of the tonnage required to carry their cargoes. These vessels are chartered from shipping companies outside the oil interests. To evaluate the quality of ship and crew, vetting inspections are performed. These inspections are based on guidelines established by consultative organisations such as OCIMF in London. The guidelines also include the evaluation of communication between crewmembers. The oil companies collect the vetting reports in different systems, such as Ship Inspection Report Exchange (SIRE) from BP in order to exchange information about ships.

Coastguards

Some Coastguards also keep records on events regarding communication lapses. For instance, Dover Coastguard collects reports about events in the Straits of Dover that cause obstructions to navigation. Examples are listed in the annexes to Lord Donaldson's Inquiry „Safer Ships cleaner Seas". Unfortunately, sufficient material from this source was also not available for this report. An analysis of the recorded events could be very promising.

The increased use of people from a much wider range of countries than in the past suggests that there are going to be many situations where crew members will be derived from several countries and will thus have communication difficulties between themselves. Many instances exist anecdotally of such crews, for example a cruise vessel having a crew consisting of 24 nationalities, cargo ships having 8 to 10 nationalities and one of a ship with a total crew of eleven, speaking seven different languages (MCB, 1995; Anon q., 1992).

Where a lack of communication plays a role in a maritime accident it is often difficult to ascertain its importance as a factor, as very often it may not be reported. It is also very likely that the number of unreported incidents will far exceed those that are reported. However, where seafarers from a variety of countries are employed the hazards inherent in ship operations are magnified if those working together cannot communicate with each other (UK P and I Club, 1992; Anon r, 1992; Donaldson, 1995; Walsh, 1997).

As an example, in an analysis of 273 accidents conducted by the Marine Casualty Branch of the Canadian Coast Guard, of vessels in Canadian Pilotage Waters under the conduct of a Pilot, it was found that 200 involved human factors and of those 20 involved a lack of communication. Therefore 73% of all accidents in the study involved human factors and 7.5% some form of communication lapse. 10% of accidents involving human factors were directly related to communication problems. (MCB, 1995). Further, it has been suggested that problems created by the failure of crew members to speak or understand English results in an incident occurring every one or two days at the ports of Long Beach and Los Angeles (Anon s, 1997).

Problems that arise in the ability to communicate between officers and between officers and crew will be reflected in the ability to operate a vessel both effectively and safely. Communication could also be a problem when crew members are from a different culture to the officers. This may lead to situations where the cultural response may be entirely different to the one expected leading to misunderstanding and inappropriate action being taken (Anon t, 1996; MARCOM, 1997).

The types of problems highlighted above can lead to the ‘proper management’ of the vessel being compromised. This can result in a suite of different problems arising which are analysed in the following section (Donaldson, 1995).

However it can be taken for granted that the number of vessels with multilingual crews will continue to increase and will be the rule in the future. Therefore it is necessary to create methods and ways enabling different nationalities on board ships to communicate for the benefit of safety. One of the starting points may be a statistical acquisition of communication deficiencies as reflected in accidents which can be employed to purposefully initiate various measures, first of all in the field of

maritime education and training. A statistical approach to this end, which has not been undertaken so far, is introduced in this report and the databases offered permit an unlimited input of data.

Creation of a database to collect information on collisions

For the purposes of this report, collision reports published from 1991 to 1997 by the Bundesoberseeamt, the supreme maritime court in Germany, have been investigated. These reports are from collisions that have taken place in German territorial waters or in which German ships were involved. The selection of accidents can be considered as representative given the fact that many accidents occurred on ships in the German Bight but not flying the German flag. To investigate these reports a database has been created.

Five main causes for every accident have been established and the same accident may appear in more than one category. By this procedure it should be ensured that the different categories are entered into statistics according to their weight. Traditionally, concomitant circumstances are only named in an accident investigation. Although these circumstances have influence on the development of an accident, they are normally not entered into statistics. The „five category method“, however, allows for concomitant conditions to be included into statistics.

The causes for collisions have been divided into the categories shown in the diagram contained in the annex. The disadvantage is that in the six years that have been analysed only 94 collisions have been described in detail. Therefore only general trends can be determined. To receive more specific information, more collisions from other maritime traffic areas have to be analysed and added. Nevertheless, the information obtained represents collisions in the German Bight where 77 % of all traffic is foreign.

Analysis of the data obtained

The idea that human beings with their individual capabilities cause more collisions than technical failures do, has clearly been confirmed by this analysis. 96 % of the accidents described were caused by the human factor:

38 % errors in situation assessment
17 % physic / psychic failing
5 % improper operation of instruments
40 % communicatively relevant factors

The diagrams in the annex give more information about distribution in the different categories. Of the communication related factors, 12 % can be attributed to on-board communication and 88 % to external communication. This trend is quite understandable considering that collisions are regularly caused by deficiencies in external communication.

Nevertheless, the trend shows that in many collisions that happened under pilotage, the master or officer did not have enough information to get his/her own impression of the situation. The pilots normally made arrangements with shore based parties or other pilots in German, so that the master was not able obtain enough information to foresee the extent of danger.

External communication has is far more likely to be the cause of a collision. It can also be divided into several categories illustrated by corresponding examples. The distribution is as follows :

15 % insufficient co-ordination with shore based parties
20 % technical malfunction
14 % neglect of radio calling procedures
47 % manoeuvre agreements with other vessels not regarded as necessary
3 % lack of English skills

1 % miscellaneous

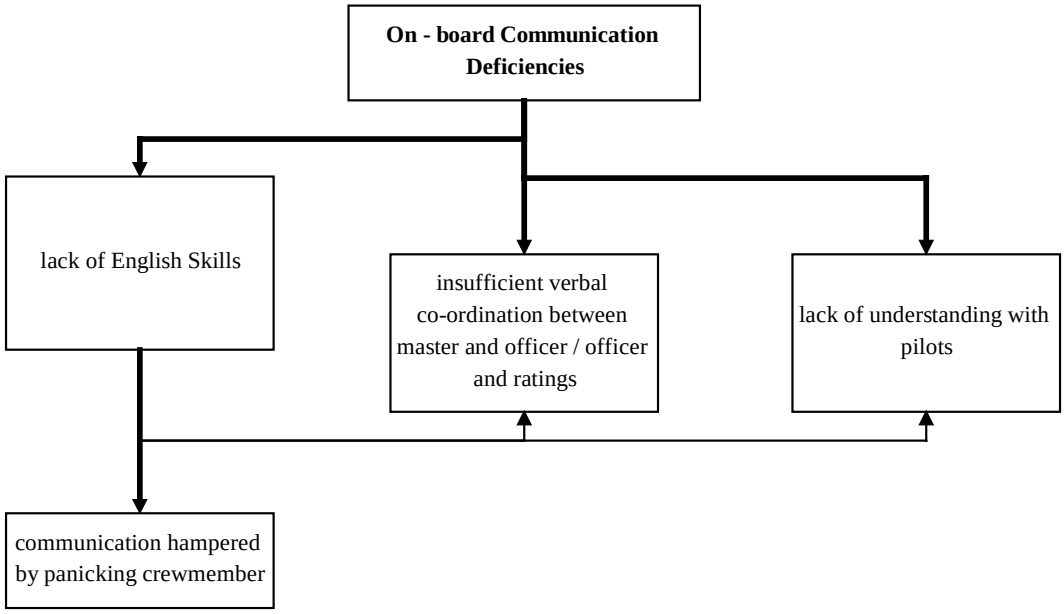
It is striking that a great percentage (47 %), falls into the category „manoeuvring agreements with other vessel not regarded as necessary“. Critics could note that this is a very subjective evaluation, but , the analysis of an accident always contains subjective factors. To reduce this criticism, only those accidents are included which have been categorised as having communication relevant factors in which it was determined that communication problems had taken place or in which the collision could have been avoided through adequate communication. In many cases the maritime court itself mentioned an interrelation between collision and communication. A vessel cannot be blamed for not establishing direct contact with another in order to overcome a hazardous situation. In situations like these, the only reproach made is that not all means were made use of to determine an imminent danger of a collision

Relations between communication problem categories

When analysing the communication relevant factors, the question arises as to whether there is a relationship between the different categories and if so to what degree. The aim is to find out, whether a deficiency in one category automatically affects the other communication categories. It must be mentioned that the key category in on-board as well as in external communication is a lack of language skills.

Especially in relation to collisions it can be assumed that poor English skills affect several categories at the same time. Poor English skills have a direct effect on the categories shown in diagram Fig 2.1.

Fig 2.1

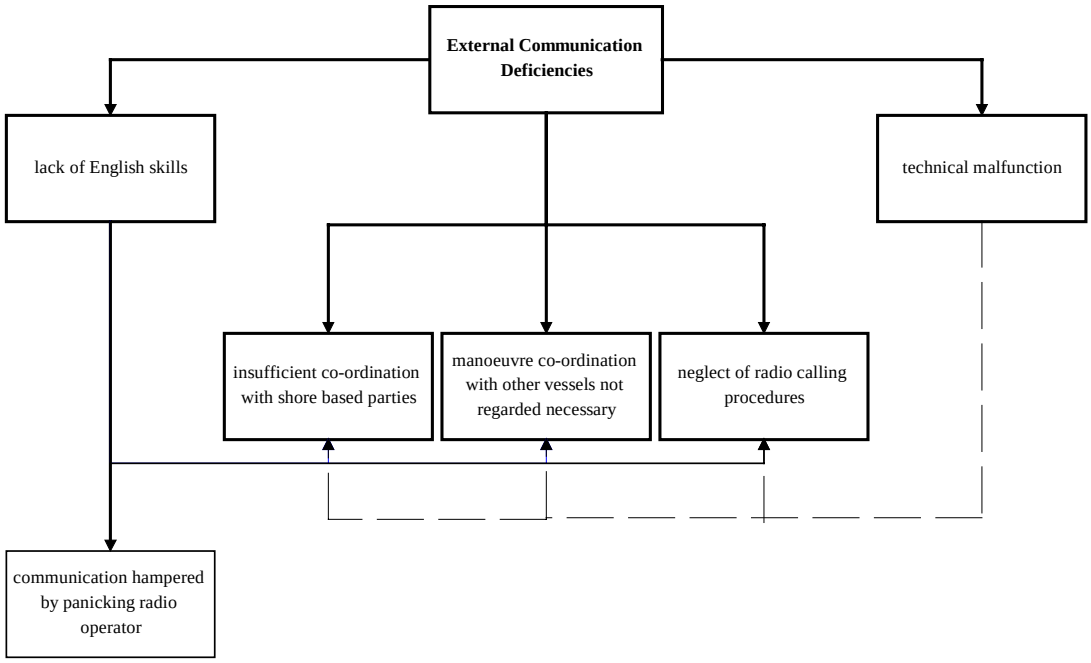


It is true to state that without sufficient English skills it is hardly possible to establish clear co-ordination agreements. Even if this problem is not apparent during the daily routine it will emerge with the outbreak of a critical situation. In these situations communication is liable to fail completely. In the other two categories the direct relationship is not that clear. A lack of English skills can play a role in the category „insufficient verbal co-ordination between master and officers / officers and ratings". But other factors, such as ethnic problems, can also play an important part. This has been made clear by the example of the MV „Anjola". The same goes for the category „lack of understanding with the pilot". Here it must also be taken into consideration that not all information available to the pilot is necessarily passed on to the master.

Similar conditions can be established referring to external communication. The categories „lack of English skills" and „technical malfunction" affects the other categories. The category „communication hampered by panicking radio operator" is a subcategory to „lack of English skills". The categories „neglect of radio calling procedures", „manoeuvre agreements with other vessel not regarded necessary" and

„insufficient co-ordination with shore based parties“ are influenced by „lack of English skills“ as well as by „technical malfunction“.

Fig 2.2



Other Accidents

To identify communication lapses in accidents others than collisions only from reports in publications is very difficult. Therefore it is impracticable with the unreliable data available to quantify the volume of communication problems and their results in maritime accidents others than collisions or near-miss events. This is due to insufficient attention paid to that factor in accident investigation in the past. The situation seems to change for the better since national and international maritime authorities, IMO included, have learnt from recent accident investigations that communication problems play a far greater part in shipping than assumed.

Chapter 3
The Importance of Language in Selection
The Ship Manager's View

Most crews of merchant ships are now multinational and culturally diverse. While shipping companies apparently give some thought to the rationale by which seafarers of different nationalities are mixed this varies among companies and depends not only on the supply of seafarers but a wide range of other factors.

This chapter is based on a survey which was undertaken to assess the rationale behind mixed crewing decisions and to identify how potential problems were recognised and addressed. The survey was undertaken in two phases, the first being a postal questionnaire and the second interviews with senior personnel of some of the responding companies.

The survey was firstly aimed at obtaining information on crew nationalities employed, reasons for employing those nationalities, areas where communication problems occurred and the relationship, if any, of those problems to specific nationalities and combinations. The survey also considered the shipping company crewing policy and any changes which had been initiated during the last twenty years and the effect that those changes may have had on communication problems. The results of the questionnaire study are presented in the MARCOM Survey of Companies. From these a range of opinions and policies of those responsible for employing seafarers can be gained

In chapter 8 the seafarers themselves get an opportunity to give their own views on some of the aspects of this survey. By talking to chaplains in seamen's missions around the world they are able to paint the picture from another viewpoint.

The issue of safety of navigation of ships which are manned by multicultural and multilingual crews has been increasingly highlighted in the past few years. Some

prominent accidents at sea have fuelled the discussion on this issue. Strength to the volume of these discussions has been added by various maritime workers' unions in different countries. A stage has now been reached where the issue of multicultural and multilingual crews is broadly seen with some anxiety as regards the safety of the ship, the environment and the people, both on board the ship concerned and on shore, who may be effected. There is some concern that, with the wider availability of seafarers from countries around the world at costs much lower than those incurred by employing "western" or "own" crews, safety is being compromised. Part of this concern is the level of expertise that these seafarers bring to the ships they sail on. But the part that this study focuses on is the possible compromise of safety through problems in communications between and among multicultural and multilingual crew.

Communication is about conveying meaning, rather than the correct or grammatical use of a language. The quality of life and efficiency of work on board ships are sustained by communications, even if very little needs to be said in the course of performing routine tasks. Successful conveying of information, making correct decisions and conveying those decisions to those concerned, monitoring of events, interaction with the concerned interests and persons, all depend upon communications, as do mutual appreciation and evaluation. But language, it must be stressed, is fundamental to communication, social and professional interaction, and understanding of intention through the medium of speech.

The requirement that those on board ships can communicate well with each other, and with relevant authorities ashore, is extremely important. There has been a vast amount of anecdotal evidence which suggests that the situation on board can vary from *congenial and efficient* on the one hand, to *dire* on the other.

It must be understood that crews on ships live and work within a social sphere. Not only is it important to be able to work together in safety but it is equally important, perhaps even more so, to be able to live together in harmony. Social tensions created by myriad factors, including culture and language, get magnified in the small and restricted environment of a ship. The crew, in their increasingly reduced numbers, form, on a ship, the society that must not only exist in harmony *(this is desirable)* but

work and perform their duties safely, efficiently and in compliance with fairly extensive regulation *(this is necessary)* - all this on very diverse ships, employed in very diverse trades and manned by diverse crews.

While some sections of the media have focused on the perceived dangers to safety brought about by multicultural and multilingual crews, there has been no objective study to substantiate or refute this perception. The present study addresses this shortcoming to some extent. This particular section of the MARCOM project sets out to obtain the perspective of ship managers towards multicultural and multilingual crews. It seeks to arrive at the rationale behind the practice of using “mixed” crews, as they are frequently known. With that aim, a survey was designed to seek the views of shipping companies.

Background

In spite of the broad mix of nationalities, cultures and linguistic diversity seen among crews, there does appear to be some rationale in the ingredients of the mix. Several well managed shipping companies are selective, to some extent, of who they employ on their ships from the large and varied supply of seafarers available across the world. There is a certain amount of experimentation with manning with. Learning from these experiments is rapid because mistakes, in this industry, are costly. There is, therefore, a pattern to the demand and requirements of a shipping company selecting from the supply available. Some companies have policies of mixing certain groups of people on their ships. Others have views on mixes of nationalities that they consider are incompatible. Recent years have, for example, seen a fairly widespread experimentation with crews from the ex-Soviet bloc countries. These crews have no track record in shipping in the modern context, outside their own national flags. Their strengths and weaknesses have been very quickly identified by shipping managers employing them.

In the selection process, there does appear to be an element of suitability to specific trades in addition to the social aspect of the crew living together. An example is the widespread use of Italians on cruise ships. Reasons for this may be aptitude, historic

or other. That lies outside the scope of this study. The point is that the selection of crew goes beyond the mere cost function. It includes other factors like trade, abilities, social mix, owners' / charterer's requirements, language abilities, flag of ship, etc. The combination of all these factors arrives at something greater than just cost - shipping company managers, like all other prudent managers, are seeking constantly to reduce costs of manning their ships but they are not single minded in this pursuit. Many other factors figure in the making of the final choice. This survey seeks to identify some of these factors and get some understanding of the rationale behind having multicultural and multilingual crews. In addition, it seeks to obtain an understanding of some of the problems associated with having such crews on ships, from the shipping companies' perspective.

It may be worth reiterating that ships are miniature societies, the congenial functioning of which depends, to a large extent, on the level of communications existing within them. This includes not only communications associated with the professional / commercial functioning of the ship but the broader and deeper levels of communications that transform this society into a cohesive and efficient team.

There is some discussion on the topic of controlling the manning of ships and having crews, only, that have a certain level of fluency in the use of certain languages. English is often the considered language. The antithesis of this point of view is that as the level of regulation increases, the level of efficiency decreases. This has been seen in the cases of heavily controlled societies in different parts of the world. Shipping, in its on-board operations, is already a heavily regulated industry.

The reality remains that ships are manned by crews of diverse cultural and lingual backgrounds and there must be some reason(s) for this situation to prevail.

The Survey

This survey was designed to get an understanding of the rationale exercised by shipping companies in their decision to entrust the care of their ships (and the cargo

they carry) to an often polyglot crew. Further, the survey sought to identify the problems, if any, that the companies came across in the use of such crews, and the ways through which these problems were addressed and controlled.

The survey was divided into two sections. The first took the form of a postal questionnaire, which was sent to 38 shipping companies. Addresses of these companies were obtained from the Fairplay Shipping Directory, 1996. The other section of the survey comprised meetings with managers of shipping companies. These meetings were intended to take the form of semi-structured interviews aimed at getting a broader and deeper understanding of the thinking of managers than could be obtained through a postal questionnaire. A summary of the results of the interviews follows the summary of the responses to the postal questionnaire.
The response rate for the survey was 60.5%. One company returned the questionnaire with no response but with the explanation that their senior management had "declined to take part in the project."

The nationalities of the personnel employed on ships by the companies surveyed are shown below to give an idea of the national mix.

For **senior officers**, the nationalities listed were:

> **Bangladesh, British, Bulgarians, Canadian, Croatian, Egyptians, Filipino, German, Greek, Indian, Italian, Latvian, New Zealanders, Norwegian, Pakistanis, Persian Gulf nationals, Polish, Russian, St. Helenian, Spanish, Swedish, Syrian, Ukrainian, USA**.

For **other officers**, the nationalities listed were:

> **Australian, Bangladesh, British Commonwealth, British, Canadian, Croatian, Filipino, Greek, Indian, Irish, Italian, Latvian, New Zealander,**

Norwegian, Persian Gulf nationals, Polish, Russian, South African, Sri Lanka, St. Helenian, Swedish, Syrian, Ukrainian, West European, USA.

For **ratings**, the nationalities listed were:

Bangladesh, British, Bulgarians, Cameroonian, Cape Verdan, Caribbean, Croatian, Fijian, Filipino, Indian, Irish, Italian, Latvian, Moroccan, New Zealander, Pakistanis, Polish, Portuguese, Russian, Sierra Leonian, Spanish, St. Helenian, Swedish, Ukrainian, West European, USA.

Factors that led the surveyed companies to the decision to employ the various nationalities are shown in the following tables ;

Table 3.1

For Senior Officers

Percentage of respondents	Reason
59.0	**Tradition**
45.5	Language
31.2	*Cost*
77.3	**Abilities / training**
27.3	Right mix
31.2	Trade
13.6	Charterer's requirements
27.2	Other: (1) Owner's requirements (2) Shortage of traditional staff

Table 3.2

For Other Officers

Percentage of respondents	Reason
45.5	**Tradition**
50.0	**Language**
45.5	*Cost*
68.2	**Abilities / training**
31.2	Right mix
31.2	Trade
4.5	Charterer's requirements
18.2	Other: (1) Owner's requirements (2) Shortage of traditional staff

Table 3.3 **For Ratings**

Percentage of respondents	Reason
31.2	Tradition
36.4	Language
68.2	***Cost***
50.0	**Abilities / training**
27.3	Right mix
27.3	Trade
9.0	Charterer's requirements
18.8	Other: (1) Availability (2) Age profile (3) Owner's requirements (4) Came with vessels

The results over all of the companies were consistent. Considering the significant differences it is seen that "tradition" as a reason for employing senior officers is highest and for ratings is lowest. The same trend is seen for "abilities and training".

"Cost" sees an opposite pattern. It is the highest factor of consideration for the employment of ratings and the least important for the employment of senior officers.

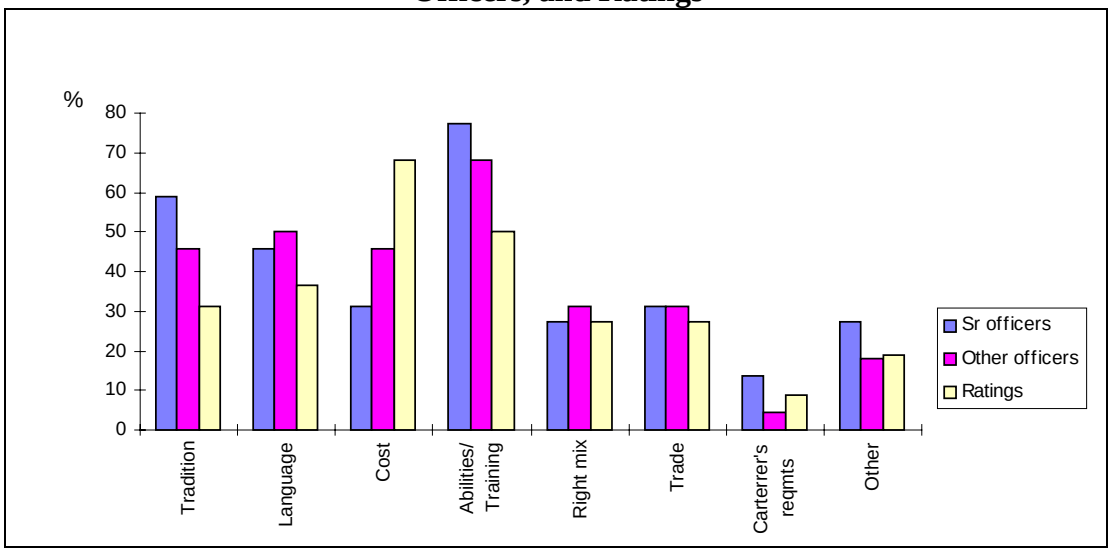
After "cost" the most often cited reason for the employment of ratings was abilities and training. For both senior and other officers, this was the predominant reason.

"Language" remains a strong reason for the selection of manning of all three categories: 45.5% for senior officers, 50% for other officers, and 36.4% for ratings.

The factors "right mix" and "trade" remain moderately, and nearly equally, important for all three categories of personnel, being cited in approximately 30% of the cases as reasons for selection of specific nationalities or cultures.

Fig 3.1

Comparison of Responses by percentage, between Senior Officers, Other Officers, and Ratings



The companies surveyed were asked to identify areas in which communication problems occurred and returns were as follows ;

Table 3.4

Percentage of respondents	Areas of problems in communication
9.4	Both cultural and linguistic
13.6	Cultural
36.4	Linguistic
40.6	Did not answer

Asked further whether these problems were linked to specific groups ;

Table 3.5

Percentage of respondents	Reasons for problems
9.0	Cultural
13.6	National
18.2	Other: (1)Shyness through lack of confidence. (2) Suspicion of other and fear of losing job. (3) Language. (4) Understanding of cultural values.

Asked that, if there had been a change in the crewing policy, was this because of work output, change of flag, politics, language abilities, costs, and trade. The option of "other" was given, which the respondents were invited to specify.

No one selected "language".

Table 3.6

Percentage of respondents	Reasons for change in crewing policy
13.6	Work output
36.4	Change of flag
4.5	Politics
45.5	Costs
18.2	Trade
27.3	Other: (1) New tonnage emanated from East Europe; this brought crews from this area, whose costs are below all others. (2) Non-availability of traditional manning.

Question 12 asked if the respondents felt that, in their experience, there were mixes of nationalities that were not compatible on ships.

The responses were:

Table 3.7

Percentage of respondents	Response
22.7	Did not respond
36.4	Yes
41.0	No

Respondents were asked to list these incompatible nationalities ;

1. Chinese and Filipino.
2. Indians and Arabs.
3. Croats and Yugoslavs.
4. Indians and Filipinos.
5. Bulgarians and other nationalities.
6. Indians and Italians.
7. Japanese and Filipino.
8. Japanese and Indian.
9. Korean and Filipino.

Comments were invited from those taking part in the survey on the subject of multicultural and multilingual crews on ships and the following section gives a selection of the comments received ;

- [With multicultural and multilingual crews] trying to understand each other's cultural differences was a problem. Once everyone understood each other, they linked into a close team. The team went into an intensive course for safety training and proved very adept at learning, with the help of videos and exercises ... Especially with Filipinos, shy at using their English, I have found Scrabble at night very beneficial. They also seem to enjoy simple quizzes, which brings out even the shyest.

Latvian crews are a different problem. They sometimes have worrying drinking habits and a lack of English. In some countries this has caused concern with correcting charts, etc. Our Latvian crew are mainly on gas tankers, which they operate fairly satisfactorily.

We have found over the years that Italian officers are successful on passenger ships. On some vessels, chartered to German interests, we have had to put German Masters on board, with Filipino crew, and in some cases hotel staff

being Portuguese. I have noticed a certain evolution of different nationalities gaining a mutual respect for each other and their different cultures, culminating in increasingly happier ships. The combination of their different ideas is interesting and they complement each other.

- Pre-employment interviews should remove linguistic problems. Cultural problems are mainly due to ignorance. Re-employment removes 90% of these.

- British officers are able to work with most nationalities. With ratings where English is not the mother tongue, they must have an adequate understanding of English.

- There is saving with foreign manning but not sufficient (monetarily) to counter the disadvantages like:

(1) Language
(2) Ability
(3) Redundancy of existing crew
(4) Tradition
(5) Customers like to see European crew
(6) Overall hassle and cost for us, a small family owned company.

- No problems provided you have the right recruiting policy and use reputable recruiting agents.

- Essential under the present economical climate in shipping and diminishing resources.

- Mix of British and Poles has worked well. Some British officers initially resented Poles ... As people got to know one another, the system has got better. No problems with officers from the Commonwealth.

- We try to have a maximum of 2 nationalities on board ... It is vital that any cultural differences are known before officers and crew are put on board.

- This subject has not been a problem with this company.

- We have permanent staff, as much as possible. Communication problems are, consequently, low. In emergencies, natural English speakers can be equally adversely effected. On-going training applies to both groups.

- We maintain clear and unambiguous work instructions and support and value cultural diversity. However, we are not comfortable with more than 3 nationalities on one ship. Certain mixes of nationalities would not be recommended.

- No problem with mix of nationalities if rules and regulations are clear and apply equally to everybody on board, coupled with good recruitment and selection procedures to select staff ... encourage and promote social activities on board helps to overcome impact of multicultural crews. ... it is best to have at least one junior officer and one junior engineer from the same nationality [as the crew] so as to act as liaison officers between ratings and senior officers or command.

- Given time, effort and willingness, the majority of difficulties can be overcome. The wish to succeed must come from all parties. English is (perhaps from lack of alternatives) the language of trade, commerce and, hence, the sea. We should concentrate on teaching the English language as a communications medium.

These comments give a valuable insight into how cultural mixes work. It also indicates that the multilingual and multicultural aspect of crewing is taken into consideration when choosing the ‘right crew’ for a ship. Experience can be invaluable in this field of management because that experience should eventually lead to a more content and therefore more efficient crew.

Chapter 4

Pilotage - On Board Observations by Researcher

Introduction

Pilotage is an area in which clarity of communication is vital. It is the point of a vessel's voyage at which the ship is closest to the shore and therefore most at risk. Consequently it is an important area when studying communication problems. It is the interface between ship and shore where there is cultural interaction and seafarers are most likely to encounter languages other than that which they use as a working media aboard their ship. A pilotage operation often allows no time and no searoom in which to rectify an error which has arisen due to misunderstandings of engine or helm orders or if tug orders and responses or other information are not clearly understood.

We know from documentary evidence that safety is jeopardised where pilots are unable to communicate effectively with the crews of the vessels that they are piloting, leading to further stress on the pilot and a reduction in the bridge officer's effectiveness.

In order to obtain a better understanding of the communication problems which arise on board a vessel under pilotage, a number of observations were made by a SIRC researcher on vessels of different kinds in four ports. By using ports in various parts of the world a good spread of data could be obtained as the national languages used were different as were the local and onboard accents. These aspects have to be overcome amongst seafarers in the context of a professional bond between a pilot and the master and crew of a vessel which he is piloting. Each has to have trust in the other and each relies on the other's integrity and efforts to communicate under critical conditions.

Data Gathering

This study of pilot-bridge team communication had to proceed on an observational basis only instead of observation and voice/visual recording methods originally envisaged. Professional and ethical reason precluded the latter method of data

collection. Research was therefore carried out by accompanying the pilot when he boarded and observing the operation as an independent party.

In the ports which allowed observers to accompany the pilot, English was the main but not exclusive working language. In order to obtain the most accurate data possible, observations were made by day and night and on different sizes of vessel most with a multi national crew mix. Varied types of weather were encountered during the observations and this gave the project a very broad spectrum of conditions to analyse. Poor visibility or extreme weather conditions all combined to render the operations diverse and the consequent stress levels produced on the bridge teams.

The cases presented are from 'field' notes and cover typical communication problems found throughout pilotage operations. The accounts are divided into the main categories of problems observed and are presented case by case under each category. In each case the type of ship and the nationality mix of crews are given.

4.1 Orders given in a raised voice

Characteristics

The first case indicates a communication problem that occured frequently. This is, when an order is initially misunderstood, (either through language difficulties or other factors) and the repeat order is given in a louder voice or even a shout. A man who has not comprehended the first communication is unlikely to understand the second due to the agitation in the voice of the order giver that results from being misunderstood the first time. That agitation would tend to further blur the meaning that the voice wished to convey. This occured in the second case also although that is mainly concerened with the use of different terms.

Case 1.1

Ship Type: General Cargo Vessel
Flag : Antigua
Master - German
Officers - Filipino
R/O - Russian

Crew - Filipino
Pilot - Indian

The master communicated with the pilot, officers and crew in good English. The pilot spoke English to the master and Hindi to the tugs and to the mooring gangs. The master generally had to repeat most of his orders to the Filipino officers fore and aft. This he did in a shout which reduced the clarity of the communication even further. He accused them of not listening to their radios but it was clearly the standard of the recipients English that was the problem.

4.2 Orders Using Different Terms for the same Actions

Case 2.1
Ship Type : Bunkering tanker.
Flag : Panama.
Master - Greek
C/E - Greek
Officers - Indian and Bangladeshi
Crew - Indian and Bangladeshi

All communications were in English but there was no consistency in communication terms between the master and the officers and crew. For example the master used the term, "Tie the rope" to the Indian officer who was mooring the vessel forward but later he used the term "Make fast" to the same man to carry out the same operation on another rope. This lack of standardisation caused hesitation.

At no time were either the Standard Marine Navigation Vocabulary (SMNV) or the Standard Marine Communication Phrases (SMCP) used on board. Orders that were not understood the first time were generally shouted the second time. There was no misunderstanding between the pilot and the master as the latter spoke English well. Any danger that may have presented itself during the operation was in the delay of communicating orders through having to repeat them and using different terms for the same action.

4.3 Use of English words incorporated into another language

The most notable use of English words in other languages was observed on ships where Indonesian was the ship's working language. In the following cases a number

of English words were used during the operations. Initially the observer thought that these may have been words that had been picked up elsewhere but the master of the first vessel explained that these were words that he had been taught during his training. There were no specific words for these aspects in his own language but the words that he had been taught had not been taught as 'English', rather they had been taught as 'nautical terms' meaning that they would be the same when incorporated in any language.

This feature of teaching was confirmed by foreign teachers of maritime English during the International Maritime Lecturers Association conference in Malmö in June 1997. Teachers said that they did not have specific words in their own languages for words such as "scupper" so they adopted the English word. However the students accepted the words not as English but as an extension of their own language.

"In position" and "gangway" are words that were observed as used between ratings on deck and shore mooring gangs as a standard means of communication that both required to do their jobs. Words found on the bridge were usually concerned with engine movements or operational orders, i.e. "make fast" or "let go". The word "machine" was often used when giving engine orders but this word is similar in English, German, Italian and French.

Pidgin English was inevitably used a great deal but the lack of grammar that this produces does not seem to affect the success of the communication method.

Case 3.1
Ship Types : Passenger Vessels
Flag : Indonesian
Masters - Indonesian
Officers - Indonesian
Crews - Indonesian
Pilot 1- Indonesian
Tugs - Indonesian
Mooring Gangs - Indonesian

a) The pilot and the master communicated in Indonesian and the pilot and the master communicated with the officers in Indonesian. Although all on board were Indonesian with the exception of the observer, some words of English were noted. The words "Stop machine" in English were used to stop the engines and although

Indonesian was being used on the bridge the words “spring” and “In position” were used in English. This indicates the international nature of a number of maritime words and phrases.

The pilot claimed that words such as those noted above were in everyday use on Indonesian ships and they were not considered to be English terms as such but nautical terms.

The master controlled the vessel himself and the pilot controlled the tugs and mooring gang. He gave all helm and engine orders in Indonesian. (The pilot was difficult to understand when he gave orders because he had a cigarette holder in his mouth for most of the operation.) At one point the pilot, when speaking to the tug in Indonesian, used the words “make fast” in English. It was difficult to gauge the actual level of the master’s English as he did not use it at all throughout the operation.

b) On board a similar vessel the captain’s English was good though he and the pilot communicated in Indonesian. While speaking to the mate forward in Indonesian the master used the words “single up” in English. Later the word “gangway” was used in an Indonesian language sentence.

c) On the third vessel in this section the master used Indonesian to the helmsman and to the mates fore and aft. The pilot used the word “haria” to the master to pass on to the mate forward when lowering lines to the mooring boat although they were communicating in Indonesian at the time. This is accepted as a Hindi word but is used world-wide aboard ships of many nations. This was a small vessel engaged in inter island trade where any language other than Indonesian would be unnecessary.

4.4 The Role of onboard Translation

It is most important that someone is available on the bridge to translate the pilot’s orders to the helmsman or the officer of the watch if they are unable to understand him. The master will usually do this but he, like the pilot is very busy during a pilotage operation and may not be immediately available to act as a translator. If the pilot is left alone with a seafarer who is unable to understand his orders or intentions

then the vessel and the operation are put at risk. The two cases are examples of failure to properly translate orders.

Case 4.1
Ship Type : General Cargo Vessel
Flag : Russian
Master - Russian
Officers - Russian
Crew - Russian
Pilot - British

Communication between the pilot and the master was in broken English. The master communicated with his officers and the helmsman in Russian. The pilot gave helm orders in Russian. The vessel was to anchor using the starboard anchor and was in the channel at half speed.

The pilot had briefed the master on the operation upon boarding 30 minutes earlier. On the approach to the anchorage the pilot asked the master if the anchor party were standing by forward. The master understood the pilot and turned to the chief officer who was controlling the anchor party from the bridge. Before he was able to communicate with the chief officer the latter gave the order by radio to let go the anchor.

Although the master had understood the pilot's meaning the chief officer had only partly understood it and interpreted it as an order to let go the anchor which order he relayed to the forecastle before the master had communicated the correct meaning to him. It was too late to countermand the order and the vessel was still moving too fast for the anchor to be dropped. Only an emergency application of the engines astern prevented the anchor cable from parting and the vessel was fortunate not to ground as she swung in the narrow fairway.

Case 4.2
Ship Type : General Cargo Vessel
Flag : Greek
Master - Greek
Officers - Greek
Crew - Greek and Indian
Pilot - British

The master and pilot communicated well in English and the master communicated with the helmsman in Greek. The vessel was approaching her anchorage with only the pilot, master and helmsman on the bridge and the master was out on the bridgewing talking to the forecastle head with a bullhorn during the final turn.

The pilot, who was alone in the wheelhouse with the helmsman, gave orders to steady the vessel on her anchoring course but the helmsman was unable to understand him. The pilot called the master who did not hear him because communications with the anchor party forward were proving difficult. The pilot then used the telegraph to put the engines to dead slow ahead and took over the wheel from the helmsman until the captain re-entered the wheelhouse. The pilot could then hand back the wheel to the helmsman and concentrate on anchoring the vessel. The lack of communication between the pilot and the helmsman could have put the ship in danger had any emergency arisen.

4.5 Unnecessary Speech

This was a problem observed mainly among the pilots themselves. Often when an order was given, a short explanation of why it was given was added. This was obviously useful to the master and his officers but it sometimes caused confusion when there was a language difficulty. In the case that follows the pilot had added the words “just to bring her back a bit” to explain why he had given the order “dead slow astern”.

The latter explanation was given in a slightly lower voice and was less clearly spoken. This was done deliberately by the pilot in order to indicate that it was not intended as part of the order. Had the master been a native English speaker he might have caught the meaning of this intonation but as he was not, he thought that it was part of the order. He probably became quite confused at this point, which could have been dangerous.

This and other similar cases observed indicate that there is a need, during pilotage operations, to clearly distinguish between orders and explanatory comments. This could be done either by separating the two with a decent interval of time or prefacing

by ‘I am doing this because’or by a completely different tone of voice. The differing native tongues of both communicators should be considered carefully when giving a “commentary” (thinking aloud) of one’s intentions. It is important that this sort of information is exchanged between the master and the pilot but it should be separated from the orders given by some means that both understand.

Case 5.1

Ship Type :	VLCC (Very Large Crude Carrier)
Flag :	Malta
Master -	Greek
C/E -	Greek
C/O -	Greek
Officers -	Filipino
Crew -	Filipino + 2 Bulgarians
Pilot -	British

All communication was in English. The master spoke to the Filipino helmsman in English. The master was on his mobile phone for most of the time speaking in Greek which led to slow communications as a number of orders had to be repeated to him.

This was a very large ship with four tugs in attendance and the master should have been devoting his full attention to the ship and not to his phone. There were a number of supernumeraries and others on the bridge during a difficult manoeuvre and this further distracted from the job in hand.

The pilot then gave the order “dead slow astern” and added “just to bring her back a bit”. The latter confused the captain and the order had to be repeated. This time the pilot did not add the second remark because he realised that the master had at first mistaken it as part of the original order. This was a good illustration of where the use of the Standard Marine Communication Phrases would have left no doubt as to the pilots meaning.

4.6 Courtesy

The cases cited below illustrate how even the use of courtesies between operators can lead to misunderstandings. While courtesy is desirable in dealings between pilots and masters and masters and their officers, it can be out of place in an operational situation. In the first case the pilot had added the word “please” to his helm order and

the helmsman seemed to have understood it as a part of the order. The answer that he gave did not make sense and indicated a misunderstanding of the order given. The helmsman would not have been expecting the pilot to have added the word to a helm order and there lay the route to the misunderstanding.

The next case was not dissimilar and although it did not lead to any confusion, it carried the situation on longer than was necessary. The pilot might well be expected to use the word "thank you" to indicate that he had heard the helmsman repeat back the last helm order as the helmsman was required to do. However there was no need for the helmsman to say anything more and the words "you're welcome" were unnecessary and could a), have been misunderstood by the pilot who would not have been expecting them and b), have been spoken over the next helm order which could well have closely followed the first.

Case 6.1

Ship Type :	General Cargo Vessel
Flag :	Isle of Man
Master -	British
Mate -	South African
2/O -	Canadian
3/O -	Russian
Crew -	Bangladesh
C/E -	British
Pilot -	British

All communications were in English. The master gave orders to the Bangladeshi helmsman in English. At one point the pilot gave an order to the helmsman "223 please" and the helmsman answered the pilot "22 please", the pilot then corrected the helmsman "223". This is a good example of the necessity of making helm orders clear.

Case 6.2

Ship Type :	Product carrier (tanker)
Flag :	NIS
Master -	Norwegian
Officers -	Norwegian
Crew -	Filipino
Pilot -	British

All communications on the bridge were in English. The Norwegian master communicated with the Norwegian officers fore and aft in English in order to keep the pilot informed. At one point in the operation the pilot gave the helmsman the order "Starboard 10". The helmsman repeated the order back to the pilot "Starboard 10". The pilot then said to the helmsman "Thank you" and the helmsman answered "You're welcome". After this had happened twice the pilot stopped thanking the helmsman.

The pilot may acknowledge the answering of an order by saying "thank you" but there is no further need for the helmsman to then say anything else. This again brings up the point made in the first case whereby courtesy perhaps has no place in bridge communications.

4.7 Use of own language in a situation where others "need to know"

This section considers the subject of translation from three different points of view although only two are detailed. The first case is an illustration of a communication that should have been translated for the benefit of the pilot and the safety of the ship. A pilot would normally be kept aware of the situation regarding the way in which the vessel was handling but in this case the helmsman, being unable to communicate with the pilot in his language regarding the response of the vessel to the helm, communicated instead with the master.

This was perfectly acceptable but the master would then be expected to communicate the helmsman's concerns to the pilot. He did not do this so the pilot was unaware that the next helm order that he gave would not have the desired effect. This led to a delay in the operation while the pilot brought the vessel back to the desired heading. It could have led to a dangerous situation had the circumstances been critical. If there is a communication problem between the crew and the pilot then the master must ensure that the pilot is kept up to date with any situation that will affect the ship's handling.

The next case is also one in which one party was not kept informed of what the other was doing. Had the master of the vessel been able to understand the communications that passed between port control and the pilot it is probable that he would have refused port control's request to bring his ship closer in to the channel. His charts

showed him the distance between the pilot station and the pilot ‘s boarding area and it would have been a simple calculation to work out that the pilot would have been unable to reach the vessel before she entered the channel and compulsory pilotage waters.

As the communication took place in a language that he did not understand, he was denied the opportunity to make his own decisions and had to rely on the port control officer for information.

In a third case not detailed here, the master took over the handling of the ship himself and in his own language, the pilot was unable to understand why the vessel was handling the way she was. If the master was not satisfied with the way in which the pilot was conducting the operation it was up to him to confront the pilot and make his concerns clear.

The master and the pilot could then have discussed the situation and probably come to some agreement. However the master chose to give his own orders in his own language allowing the pilot to believe that he was following the pilot’s orders by repeating them back to him.

The danger here was that although the master was entitled to handle his own vessel, the pilot, because she was not reacting as he expected, was using his tugs to counteract the master’s orders. The master should have realised this because with the vessel reacting to two different inputs, she was effectively out of control.

Case 7.1

Ship Type : River type coastal tanker
Flag : Liberian
Master - Indian
Officers - Russian and Indian
Crew - Bangladesh, Indian, Kuwaiti

The Master stated that the language used on board consisted of a ‘bit’ of everything but was mainly Hindi and English. At one point in the operation there was an incident that could have had serious consequences in a bigger and less manoeuvrable vessel.

The helmsman who was Indian was given an order by the pilot, through the master, to steady the vessel on her course. Due to the slow speed of the ship, that order required the wheel to be put hard-a-port to maintain the heading. The helmsman informed the master of this in Hindi but the master did not pass this on in English to the pilot. Thus, when the pilot wanted to steer the ship further over to port and thinking that the wheel was more or less in the amidships position, he ordered 10 degrees of port helm to do so. This was considerably less than the helmsman was already using to steady the vessel on her course and subsequently when the helmsman obeyed the order he reduced the amount of helm to port and the vessel started to swing to starboard.

In this case there was plenty of room to starboard and no other traffic was in the vicinity, the pilot therefore was able to use both the wheel and engines to bring the vessel backon course. However had the master translated to the pilot, the helmsman's remark that the ship was no longer steering, the pilot would have increased the speed to improve the steering and would not have had to take action to avoid the vessel swinging into the channel and away from the direction in which he intended her to go.

The pilot it should be noted had been unable to observe the angle of the rudder from his position on the port side of the wheelhouse because he needed to be in that position in order to judge the approach to the berth. He had to rely on the helmsman and the captain to keep him informed of how the vessel was steering.

Most orders given on the bridge of this ship by the pilot and the master had in fact to be repeated due to the lack of understanding of English and while the pilot spoke to the master in English, the master spoke to the Indian mate forward in Hindi and the Russian mate aft in heavily accented English. English was used between the Indian master and the Russian officers on the bridge.

The master used English to Port Control and Hindi to the helmsman at all times. Almost no orders were repeated back from the helmsman or from the Russian officer manning the telegraph, this seems to have been due their lack of confidence in using English. The master spoke to the mooring foreman (a Sikh) in Hindi during the mooring operations as did the Indian officer forward.

The mooring foreman made hand signals to the pilot to position the vessel but then the vessel had an enclosed bridge so apart from radio contact, a voice option would not have been available.

Case 7.2

Ship Type : Product Tanker
Flag : British
Master - British
Officers - British
Crew - Indian
Pilot - African

These observations were not done on board but carried out from listening to radio communications on port control's working frequency. The master was on the bridge of his ship, had requested a pilot and was awaiting him in the roads outside the port. The pilot spoke to his port control on the working channel (which the ship was able to monitor) in his own language. He informed port control that he was delayed but would board the pilot boat at a certain time.

Shortly afterwards the port control called the ship in English and brought it closer in to the pilot boarding ground in readiness for embarking the pilot. The master asked what time he might expect the pilot but port control was unable to give him an exact boarding time. The pilot again called port control in his own language and told him that he expected to arrive at the boat in the next few minutes. At this, the port control called the ship right into the channel entrance to pick up the pilot.

Once the ship had entered the channel however, port control realised that the pilot had underestimated his time to the pilot boat and was not yet aboard it. Port control then asked the master to turn his ship around but the master said that he was unable to do so because he was inside the channel entrance and was committed to making the entry. The master subsequently entered the port without a pilot and anchored his ship in the fairway as soon as it was safe to do so.

Had the communication between the pilot and the port control officer been in English as the port's regulations required, because he was monitoring the pilot's working frequency, the master would have known that the pilot would be unable to board him

before he had entered the channel. This was because he was aware of the distances involved between his vessel and the position at which the pilot intended to board the pilot boat.

4.8 Voice Intonation

Communication can also be about how language is perceived through the tone of voice used. A question is generally understood to be such no matter what language is used and whether or not the language is recognised. The case below illustrates this well.

Case 8.1

Ship Type : Container vessel
Flag : Liberian
Master - Korean
Officers - Korean
Crew - Korean
Pilot - British

The vessel was alongside the berth and tying up fore and aft. The master and the pilot were on the starboard bridgewing observing the mooring operation when the second officer who was aft came over the radio with a query. The master turned to the pilot who answered the query before it had been translated.

The master was suprised that the pilot had understood the second officer and asked him how it was that he understood Korean. The pilot answered that it was the intonation of the officer's voice that had led him to understand the question. That, linked with the pilot's familiarity with the problems that that particular berth raised, had allowed him to understand the question.

This was an interesting aspect of communication in that it involved voice intonation rather than vocabulary. If a problem occurs regularly at the same place it is a useful pointer to where difficulties lie.

4.9 Interruptions

In two of the cases observed, the master spent a major part of the pilotage operation on his mobile phone. In the first the master was engaged in a conversation with his owners throughout the operation. While this might be a confirmation of his

confidence in the pilot's abilities, it meant that he was not on hand to act should there be any communication problems between the pilot and the vessel's officers. Although this was unlikely in that particular case, the master was not making himself available should it become necessary.

In a second case the master was again on his mobile phone to an agent or his owner. This was a very large ship in a fairly tight manoeuvring situation and the master was passing on the pilot's orders while speaking into his phone. It was on this vessel also that there was a fair amount of distraction due to the number of supernumeraries in the wheelhouse. While not strictly a communication problem it may still have had an effect on the operation. Only the first case is detailed below.

Case 9.1
Ship Type : Container Ship
Flag : Marshall Islands
Master - German
Mate - American
C/E - British
2/E - British
All Others - Filipino
Pilot - British
Mooring Gang - Indian
Tug crews - Filipino

The master was on his mobile phone for most of the pilotage seemingly to his head office who had called shortly after the pilot boarded the vessel. This interfered with communication between the pilot and the master and between the master and the American chief officer who was on the wheel and the telegraph, there had been a Filipino helmsman on the wheel during the early part of the pilotage but he was sent forward to supplement the mooring party there.

The communication problems here were not of a multilingual nature but were by virtue of an inappropriately timed phone call which the master would have done well to delay until a more appropriate time. Thus all communications were clear and there was little opportunity for misunderstandings.

There were only two men forward for mooring despite the size of the vessel but communications between the bridge and the Filipino mates fore and aft were clear and

precise. Communications between the pilot, the tugs and the mooring gang were in English and were clear and without any problems.

The vessel was a fairly new containership on a regular liner run and the level of communication was up to that expected of a vessel of her type. This type of vessel runs to a tight schedule and cannot afford to lose time at any port of call. It would be expected that a reasonably high standard of crew would be found on such a vessel.

4.10 Non Verbal Signals

This type of communication is restricted to those cases where the use of language breaks down almost completely often on smaller ships. Although it is not a recommended method of making oneself understood it can be effective if all else fails. No matter what languages are spoken aboard, hand signals often come into use. There are accepted signals for mooring operations that are used and understood world-wide. For example; crossed forearms -make fast, a vertical movement of arms by the side of the body with palms facing up - let go, vertical movement of arms in front of the body with palms down - slack away, one arm rotated above the head - heave away.

In one of the cases shown below even hand signals proved difficult to use and the pilot was forced to take over the handling of the ship himself. She was fairly small and did not need the help of tugs but it still put the pilot in an awkward position if he should have to leave the wheel to get a different viewpoint of the berthing situation. Another case was however, an illustration of how a pilotage operation can be carried out without a word being said. The pilot was only able to point at the telegraph for the engine speed that he wanted. This was despite the fact that the telegraph was marked in the Russian alphabet, fortunately ship's telegraphs world-wide are marked in the same graduations.

The third case is very similar but whereas in the last case the pilot was able to give his helm orders in Russian, in this case the orders had to be given by pointing at the helm indicator in order to obtain the amount of helm required. The vessel's course was steadied by moving two arms in parallel along the ship's heading at that time. The last case shows the much more common use of non verbal signals between ship and shore and on board the vessel itself.

In all of the above cases, diagrams were only used as a means of clarification and not as a means of communication. It is often easier to explain to a ship's master what position the pilot is going to berth his ship in, by means of drawing a simple diagram. The arrangement of the ship's ropes for mooring can often be far better shown as an illustration rather than described verbally.

Whistle signals are still fairly commonly used both at sea and during pilotage. Although it is no longer usual for a pilot to use a whistle to control tugs there are still parts of the world where it is still common practice. The tug may answer on the tugmaster's whistle or the tug's own whistle and it is a means of communication that requires no modern technology or language ability. A set of signals can be laid down that will be understood no matter what the mother tongue of the user.

Case 10.1

Ship Type : Deep sea tuna boat
Flag : Korean
Master - Korean
Officers - Korean
Crew - Korean
Pilot - British

Almost no English at all was spoken on board. The pilot, being unable to communicate his orders, decided that the safest thing to do was to take the wheel and telegraph himself. This meant that his view of the operation was restricted making the pilotage more difficult but this was more than compensated for by the fact that the vessel was being navigated as he intended.

Mooring the vessel was done mostly by hand signals between the pilot and the officers and crew. As the boat was to be berthed alongside a fellow fishing vessel, no communication with a shore mooring gang was necessary.

case 10.2

Ship Type : Trawler
Flag : Russian
Master - Russian
Officers - Russian and Ukrainian
Crew - Russian
Pilot - British

The pilot and the chief officer were able to communicate in English though the captain did not speak English at all. Helm orders were given to the helmsman by the pilot in Russian and repeated by the master but engine orders had to be given by pointing to the desired speed on the engine room telegraph.

A second pilot boarded another Russian trawler astern of the first with the intention of berthing the two vessels side by side. He found that nobody aboard spoke any English at all. The vessel was berthed very slowly by getting the pilot of the first ship which was already moored, to shout translations of helm orders across the closing gap between the trawlers.

4.11 Conclusions

Although the data was gathered from a small population it was reasonably representative of the industry as a whole and the potential danger areas in communication.

It was observed that most of the senior Russian officers had a good grasp of the English language for operational purposes but that did not extend to the more junior members of the crews. Also notable was the lack of a communication language among grades seafarers from the Far East. This is well indicated by the two cases which show Korean seafarers on a larger container ship who could communicate well enough with the pilots and shore authorities, and Korean fishermen on an ocean going fishing vessel who were unable to communicate at all except by sign language.

As shown particularly in cases 1.1 and 2.1, the raising of the voice to repeat an order that has already been misunderstood is common and counterproductive. In that case the shouted repeat caused only confusion, delaying and endangering the mooring operation. There seemed a strong tendency to mistake a lack of understanding as a lack of effort or intelligence.

In interpretation of orders a direct link between the pilot and the helmsman is vital. If that link is broken by the temporary absence of a translator or by the translator failing to pass on a communication from one to the other then the operation is put at risk. The two shipmasters mentioned in the case studies who spent most of the pilotage

operation on their mobile phones were doing just that. Whereas in one of the cases the helmsman spoke English well enough and was close by in the wheelhouse, in the other the man on the wheel was not a native English speaker and was, due to the size of the vessel, a considerable distance from the pilot. This was a difficult operation requiring four tugs to berth the vessel and the pilot needed all the help that he could get on the bridge.

The answer to many of the communication problems cited in the cases is simply clarity of speech. A slower use of speech when communicating with someone whose mother tongue is different is essential, as is the recognition that a problem can exist. All too often the speech of the other is taken for granted by the master or the pilot during an operation. Each must learn to appreciate the problems that the other may have.

The use of the Standard Marine Navigation Vocabulary and its replacement the Standard Marine Communication Phrases, was not found on the bridge of ships under pilotage and much of the communication used during the operation was still left to chance understanding. The advantages that SMCP can offer are still not appreciated by the majority of mariners and until they come into common use, misunderstandings will continue to occur. Seafarers do not have to speak different languages for misunderstandings to occur, it only needs different accents in the same language to cause confusion.

It is at the interface between ship and shore, i.e. port control, pilotage and mooring operations, that most misunderstandings occur. Port control and coastguard stations still have considerable problems communicating simple phrases to vessels at sea and although that concerns another part of the study, it overlaps into the field of communication aboard.

The communication problems referred to are found on both sides of the operation. The case studies show that more care is sometimes needed among the pilots themselves when dealing with other cultures. A pilot may experience five or six ships a day and he may encounter five or six different nationalities during that day. He must

therefore look critically at his own performance during the pilotage operation and ensure that he meets the crewmembers halfway in the communication problem.

A pilot's job is to have local knowledge of his area. He must understand that those relying on his services do not have that familiarity and he should be aware of this when dealing with them. It is all too easy to become irritable with those who cannot fully grasp what is required because of communication problems and an awareness of this is a first step towards better bridge communication.

It was particularly noticeable that no standard phrases were used at any time by any pilot save some typical seafaring terms. However as many standard phrases have their roots in these terms it should not be difficult for them to become routinely used. The number of instances shown in the case studies where these terms are used in English by non English speakers indicates that there is already a familiarity with many.

This series of observations showed that there are still many areas where communication under pilotage can be improved. Translation is an all important element of that communication because despite improved training for some, there will always be crewmen on board who will be unable to communicate effectively with pilots of different nationalities.

There is a need for a wider dissemination of the uses and convenience of standardised phrasing. It appears that many at sea still do not realise their potential for improved understanding and safety. Pilots in particular rarely used them but would benefit from them aboard a great number of the ships that they dealt with. It is perhaps the responsibility of pilotage authorities to encourage standard language use for it is they who are obliged to deal with the problem daily.

This section of the report shows that there is room for improvement on both sides of the pilotage operations. The ships themselves need to prepare more carefully for approach to a port by ensuring that the best bridge team they can assemble is available for pilotage. The pilots need a better understanding of how the speed and clarity of their communication can affect the overall outcome of the operation.

In the next chapter another aspect of the pilot-crew interface is covered. This involves analysis of data collected from a large number of vessels showing again a wide spread of languages and how the mix of languages is used from the point of view of the pilots themselves.

Chapter 5

Pilotage - On Board Observations by Pilots

The previous chapter provided provided examples of communication problems witnessed by a researcher (who was also a qualified mariner) on board. This section provides some results from a large number of co-operating pilots on their experiences on a ship by ship basis.

This section shows again how diverse the spread of languages is in the shipping industry today, and uses a case study to illustrate examples of the mix that a pilot may face upon boarding a vessel. The data was collected for over 4500 ships in 19 ports. Much of it has yet to be analysed, we present therefore, one case study only

The Case Study

The case study considered here compares 770 ships entering one German port. The pilot on each vessel completed a pro forma for the MARCOM project allowing the analysis below.

In summary form the data from the German case study shows

1. 345 out of the 727 vessels (for which an official ship language was noted) declared English as the official ship language.

2. 770 Vessels - Captains came from 49 different countries

Most common were:

German	146	Swedish	41	Croatian	18
Russian	73	Polish	53	Korean	18
British	60	Danish	30	Finnish	15
Dutch	60	Filipino	22		
Norwegian	59	Greek	19	(All others < 15)	

3. The first language of communication between the Pilot and the Captain was

In English	In German	Also in	
620	131	Russian (1)	
			Spanish (1)
			Italian (1)

First language of communication was not specified for 15 vessels

4. A second language of communication between the Pilot and Captain was specified on 9 vessels. These languages were:

German (3), English (2), Dutch (2), Russian (1), Greek (1)

The number of languages used by the bridge team was specified on 697 ships.

More than one language was used on the bridge on 370 (53%) of these 697 ships.

English was the first language used to communicate between the captain and pilot on the majority of vessels (620), which arrived at the port, whilst German was used on a further 131 ships. The other languages used were Irish, Russian, Italian and Spanish (one vessel each). No language was specified on the remaining 15 questionnaires.

A second language of communication was specified for only nine vessels. These languages were German (3 vessels), English (2 vessels), Dutch (2 vessels), and Russian and Greek (one vessel each).

The nationality of the captains are given separately according to whether English, or German, was the principal language of communication used with the pilot (see Table 1 below). Where German was the language of communication, the captain was usually German (on 85% of vessels). The remaining captains who spoke in German were Dutch (13), Danish (3), Polish (2), and Norwegian and Croatian (one each). Among the 620 vessels, upon which communication between the master and pilot was in English, the nationality of these captains was much more heterogeneous; they came from at least 49 different countries.

Similarly, there is a much greater homogeneity among the flags flying over those vessels upon which German was the language of communication (Table 2). There were only 13 different flags among the 131 vessels, whilst the German national flag accounted for 57 (44%) of these. Where English was the language of communication, the flags were distributed across 69 countries.

Table 5.1: Nationality of the Captain by Language of communication between the Captain and Pilot (column percentages in brackets)

Vessels upon which the language of communication used between the pilot and captain was:

Nationality of the Captain	English	German
German	32 (5%)	111 (85%)
Russian	68 (11%)	
British	59 (10%)	
Norwegian	57 (9%)	1 (1%)
Dutch	46 (7%)	13 (10%)
Swedish	41 (7%)	
Polish	32 (5%)	2 (2%)
Indian	29 (5%)	
Danish	29 (5%)	3 (3%)
Filipino	22 (4%)	
Greek	19 (3%)	
Korean	18 (3%)	
Croatian	17 (3%)	1 (1%)
Finnish	15 (2%)	
Estonian	13 (2%)	
Chinese	11 (2%)	
Italian	10 (2%)	
Other nationalities	102 (16%)	
Total	620 (100%)	131 (100%)

Table 5.2: Flag of the Vessel by Language of communication between the Captain and Pilot (column percentages in brackets)

Vessels upon which the language of communication used between the pilot and captain was:

Flag	English	German
Norway	53 (9%)	2 (2%)
Panama	44 (7%)	3 (3%)
The Netherlands	38 (6%)	13 (10%)
Sweden	38 (6%)	
Russia	37 (6%)	
Cyprus	37 (6%)	15 (12%)
Bahamas	33 (5%)	
British	26 (4%)	
Liberia	24 (4%)	6 (5%)
Malta	23 (4%)	8 (6%)
Antigua and Barbuda	23 (4%)	18 (14%)
Germany	15 (2%)	57 (44%)
Finland	12 (2%)	
Isle of Man	12 (2%)	1 (1%)
Korea	12 (2%)	
Singapore	11 (2%)	1 (1%)
Estonia	10 (2%)	
Other nationalities	172 (28%)	7 (5%)
Total	620 (100%)	131 (100%)

On those vessels where German was the first language of communication used between the pilot and the captain, perhaps surprisingly, there tended to be more languages used by the bridge team (compared to those vessels where English was used to communicate). This difference is evident from the Table 3 below, and is statistically significant ($p<0.05$). Clearly, where German was the language of communication, the bridge team used more than one language on 68% of these vessels. This compares with 50% of vessels where English was the language used between the captain and pilot.

Table 5.3: Number of Languages Used by the Bridge Team by Language of Communication Between the Captain and Pilot (column percentages in brackets)

Vessels upon which the language of communication used between the pilot and captain was: Number of languages used by the bridge team	English	German
One	285 (50%)	38 (32%)
Two	266 (47%)	73 (61%)
Three	19 (3%)	8 (7%)
Four	1 (0%)	
Total	571	119

Some degree of explanation for this perhaps surprising finding above, that more languages tended to be spoken on the bridge of those vessels where the captain and pilot communicated in German, may be found in Table 4 below. It is evident that a majority (57%) of vessels, upon which the communication was in English, were crewed by officers who were of the same nationality. This nationality was most often Russian (61 vessels), followed by Swedish (35), British (31) and Dutch (28). Among those vessels where communication was in German, however, only 28% were crewed by officers who came from the same country. These countries were Germany (23 ships), The Netherlands (10), Denmark (2) and Russia (one).

Table 5.4: Nationality of the Officers by Language of communication between the Captain and Pilot (column percentages in brackets)

Vessels upon which the language of communication used between the pilot and captain was:

Nationality of the Officers	English	German
Single nationality among captain and all other officers	358 (58%)	36 (28%)
of which, these nationalities were:		
German		23 (18%)
Russian	61 (10%)	1 (1%)
Swedish	35 (6%)	
British	31 (5%)	
Polish	19 (3%)	
Filipino	16 (3%)	
Dutch	28 (5%)	10 (8%)
Danish	16 (3%)	2 (2%)
Norwegian	19 (3%)	
Croatian	11 (2%)	
Finnish	11 (2%)	
Indian	12 (2%)	
Korean	14 (2%)	
Other single nationalities	85 (14%)	
Total vessels	620	131

Furthermore, this evidence of a greater heterogeneity among the nationalities of officers, upon those ships where communication was in German, is further supported as follows; there was an average number of 1.79 different nationalities of officers on these ships, compared to 1.48 different officer nationalities, upon the vessels where communication was in English. This difference was statistically significant ($p<0.001$).

Among the eighty-six vessels where communication was in German, and where the captain and officers were not all from the same country, the different combinations of nationalities are summarised in Table 5. Thirteen different nationalities, and twenty

different officer crewing mixes are represented among the officers on board the 76 vessels for which the crewing composition returns were complete.

Table 5.5: Flags of the Vessels, upon which the Pilot used Sign Language to Communicate with the Captain, Watch Officer or Helmsman

Flag of Convenience		Non-FOC	
Antigua and Barbuda	9	Russia	13
Bahamas	8	Norway	6
Panama	7	The Netherlands	5
Cyprus	6	Denmark	4
Malta	5	Greece	3
Liberia	3	Germany	3
Singapore	2	Estonia	2
Belize	1	Lithuania	2
St. Vincent	1	Turkey	2
Hong Kong	1	South Korea	2
		Italy	1
		Belgium	1
		Tunisia	1
		United Arab Emirates	1
		France	1
		Finland	1
2 Flags Unknown		Ireland	1
		Japan	1
		Great Britain	1
		Bulgaria	1
		Sweden	1
		Algeria 1	
		Jamaica	1
		Nigeria 1	
Total	43		56

Of the 101 vessels upon which sign language was used to communicate, the pilots indicated the number of languages used by the bridge team for 95 of these ships. Of these 95, four languages were used by the bridge team on one vessel only; the bridge

team used three languages on 9 ships, two languages were used on a further 41 vessels, whilst one language only was used on the remaining 44 ships (see Table 7).

In other words, an average of 1.65 languages were used by the bridge team on these 95 vessels. This was slightly higher than for those vessels where no sign language was used; on these ships, an average of 1.56 languages were used by the bridge team. This difference in the average number of languages used by the bridge team was statistically significant ($p<0.05$).

Table 5.6: Number of languages used by the Bridge Team by Whether or not Sign Language was used to Communicate between the Pilot, and the Master, Watch Officer or the Helmsman

Whether or not Sign Language was used to Communicate

Number of Languages used by the bridge team	Vessels upon which Sign Language *was* used	Vessels upon which Sign Language *was not* used
One	44	264
Two	41	279
Three	9	18
Four	1	
Total	95	561
Average Number of Languages Used by the Bridge Team	1.65	1.56

The total number of crewing nationalities on board is given separately in Table 8 below, for those vessels upon which sign language was used, and for those vessels upon which sign language was not used. Perhaps, surprisingly, the average number of crewing nationalities was slightly lower on those vessels where sign language was

used (1.71) than on the ships where it was not used (1.99). This difference, however, was not statistically significant.

Table 5.7: Number of Different Crewing Nationalities on board by whether or not Sign Language was used to Communicate between the Pilot, and the Captain, Watch Officer or the Helmsman

Total number of different nationalities on board	Whether or not Sign Language was used to Communicate: Vessels upon which sign language *was* used	Vessels upon which sign language *was not* used
One crewing nationality	47	198
Two	24	193
Three	8	75
Four	5	25
Five	0	8
Six	1	7
Seven	0	2
Eight	0	1
Total	85	509
Average number of crewing nationalities on board	1.71	1.99

Diagrams used to Communicate between the Master and the Pilot

There were 59 vessels, upon which the pilot used diagrams to communicate with the master. The flags of these vessels are summarised in Table 9. 24 of the 59 vessels were flying flags of convenience, whilst 33 were nationally-flagged, with 2 flags unknown.

Table 5.8: Flags of the Vessel upon which the Pilot used Diagrams to Communicate with the Captain

Flag of Convenience Vessels		Non-FOC Vessels	
Antigua and Barbuda	6	Russia	5
Malta	4	Denmark	5
Bahamas	4	The Netherlands	3
Liberia	2	Greece	3
Singapore	2	Germany	2
NIS	1	Norway	2
St. Vincent	1	Turkey	2
Netherlands Antilles	1	Portugal	1
Belize	1	Estonia	1
Hong Kong	1	Finland	1
Panama	1	Croatia	1
		Italy	1
		India	1
		Great Britain	1
		Algeria	1
		Jamaica	1
2 Flags Unknown		Korea	1
		Latvia	1
Total Vessels	24		33

Of these vessels upon which diagrams were used to communicate, three languages were used by the bridge team on 5 ships, two languages were used on the bridge on a further 17 vessels, whilst only one language was used on 36 ships; an average of 1.47 languages were used by the bridge team on these vessels where diagrams were used to communicate (Table 10). This was slightly lower than for those vessels where diagrams were not used to communicate between the master and the pilot; on

these ships, an average of 1.59 languages were used by the bridge team. This difference was statistically significant ($p<0.05$).

Conclusions

Clearly the English language is shown to be used as the first language of communication between the pilot and the captain in the majority of cases. The study being carried out in a German port means that the second most common language used was almost inevitably going to be German. The fact that the local language would be seen to dominate others after English would be true of any port that took part in the study.

The use of sign language for communication was analysed in a number of cases and it was found that the more sign language was used the fewer the languages were used on the bridge. Although as mentioned earlier the average number of crewing nationalities was lower on those vessels where sign language was used, the difference was not said to be statistically significant. However sign language need not be used only on mixed crew ships. Homogenous crews will use sign language to communicate over distance to avoid unnecessary use of communication aids.

Traditionally crews have used a number of different signs to indicate the state of an operation or to convey orders. Different signs are used for mooring anchoring and berthing operations. Both the pilot and the master may use signs during a pilotage operation but this is only one of the forms of communication that will be available to them.

Studying the language of the Bridge team, most of the ships had two or three languages. This could mean that when the German pilot was speaking in German to the German Captain it may not be comprehensible to the officers on the bridge and this would be a potential safety hazard. However it was recorded that the German pilot on 32 ships spoke English to the German Captain, for this reason

The implications are that a diversity of languages on the bridge could be a danger when the pilot and Captain are talking their mother tongue, or it could be an asset since if there are four languages in use, the chances are that someone on the bridge

will understand the pilot. This is an aspect that will be further researched but the implications are that in critical pilotage conditions a common language is essential.

Chapter 6 now goes on to study external communication i.e. ship to ship communication. External communication is a different form of communication altogether and the following chapter (7) expands upon it further.

Chapter 6

External - Ship to Ship Communication

In the previous chapters communication is primarily taking place on a face to face basis. However the English language is largely used in radio communications and it is in this area that misunderstandings become even more dangerous. It needs to be recalled that the Collision Regulations were devised long before radio was in common use and they did not require the knowledge of any language other than the navigator's own to be effective. They were internationally adopted and although every watchkeeper learned them in his own language, he was aware of the action that the watchkeeper on an approaching ship would take to avoid a collision. However with a poorer standard of training evident at sea today it is becoming more common for an officer to call up the approaching ship on radio to discuss any manoeuvres that he may wish to make. This is where a knowledge of the English language is essential and where a poor grasp of it can be dangerous.

A well trained officer will obey the Regulations for the avoidance of collision and will not need to communicate with an approaching vessel unless it is absolutely necessary to do so. A serving shipmaster stated recently that he forbade his officers to use the VHF radio to call other ships for collision avoidance unless they were in confined waters and were uncertain of the other's intentions. As the hailed vessel will often be unidentified there is no way to be certain that the vessel that one wishes to communicate with is the one that answers. The words "vessel on my port bow" are meaningless if there are a number of ships in the vicinity of the caller and the radio has a range of 50 or 60 miles. All of these are precarious practices *before* language is brought into the equation. If the Collision Regulations are now replaced by two seafarers speaking to each other in a tongue that is neither's first, then a dangerous situation can develop.

IMO maritime English standards: SMNV and SMCP

Communication ship to ship and ship to shore has undergone a number of attempts at standardisation but the IMO has produced two specific methods i.e. the Standard Marine Navigational Vocabulary (SMNV) which is in the process of being superceded by the Standard Marine Communication Phrases (SMCP). A brief background to these communication methods follows in order to show what standards need to be met.

Standard Marine Navigational Vocabulary (SMNV)

The Standard Marine Navigational Vocabulary (SMNV) was first issued in 1977 by the International Maritime Organisation and was subsequently amended in 1983 and 1985. The amendments were introduced in the light of comments received the Maritime Safety Committee of the IMO at its forty-eighth (June 1983) and fifty-first sessions (May 1985). These were subsequently published in the *Revised edition* 1985.

In the foreword to the 1985 edition the introduction and recommendation of SMNV was motivated and also justified by the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW 1978), for the 'ability to understand and use the vocabulary' as a requirement for 'the certification of officers in charge of a navigational watch on ships of 200 gross registered tons or more'.

The aim of SMNV was set out:

- to assist in the greater safety of
    a) navigation,
    b) conduct of ships; and
- to standardise the language used in communication for
    c) navigation at sea,
    d) in port-approaches,
    e) in waterways and
    f) harbours.

The introduction of the Vocabulary was conceived and empowered with comparatively narrow goals but the consequences have been of a much wider

character. It should be noted that, though the use of the Vocabulary was not intended to be mandatory, it has reached its main goal - i.e. 'through constant repetition in ships' (cf. Introduction to 1985 edition) the modern navigator has become aware not only of the existence but also of the relevance of SMNV for the safety of navigation;

It is perhaps significant from the historic perspective and particularly from today's point of view that, through systematic learning and training in maritime education and training establishments (MET) throughout the world, SMNV has become part of the modern watchkeeping officer's communicative competence which, in turn, has had a strong bearing on the overall safety of navigation; this impact is difficult or even impossible to measure but modern seafarers are, mostly, aware of the presence of the lexical and structural portions of SMNV in the performance of their every-day and duties.

This pioneering work, as SMNV is referred to by the authors of SEASPEAK (Weeks 1984), has helped in recognition of the importance of using one common language to ensure safe communication and safe navigation. The fact that in modern times this language happens to be *maritime English* is of course no coincidence.

The text of SMNV is principally divided into two main sub-divisions:

- Phrase vocabulary for external communication (PART III), and
- Phrase vocabulary for on-board communication (PART IV).

External communication is far more substantially elaborated than internal. In this part, shorter abstracts of maritime discourse (e.g. question-answer groups, suggestions) are recommended for use in maritime communications to suit 22 different communicational situations at sea. These situations have been well thought out and chosen so as to offer the potential user (the ship's officer) the most likely and typical voice exchanges and broadcasts, which occur in every-day navigation. The choice of topics is, of course, always open to discussion and may raise differing opinions. It is time-dependent, reflecting the communicative needs of the seventies. Thus, insufficient weight is placed on communications encompassing protection of the environment and no or almost no communication situations have been provided to involve ship's propulsion and marine engineering communications. The most serious

drawback, however, was the absence of search and rescue communications (except for communication subject 21 - Helicopters) and communication phrases (not only sentences, but orders, procedures, and crown management) in dealing with passengers, especially in multi-lingual circumstances.

Despite their awareness of its existence through teaching it is hard to ascertain whether and to what extent seafarers, i.e. predominantly deck officers, are aware of the existence of SMNV standards and the necessity to apply them when listening to or reading texts of broadcasts from coast stations. Even more so, when taking part in VHF or MF communication exchanges. Unfortunately, recording is still not available as a legitimate source of information for an analysis of VHF communications. Therefore studying the presence of IMO SMNV standards (intentional or sub-conscious) in the communication activities (exchanges) of navigating or engineering officers, either when on board or on shore, is both a questionable and time-consuming activity. Therefore, it is only on the basis of personal experience gained by teachers of maritime English, and through close contacts and co-operations with pilots, VTS staff etc., that such information can be gathered to draw relevant conclusions as to the use of SMNV standards in real communications.

The same holds for ascertaining as to whether and, if so, to what extent the seafarers themselves find the SMNV standards user-friendly. On the teachers' part, it could be stated, though without relevant support from sufficient research, that these standards, however simple they may appear to be, are much easier to teach than to practise, test or examine. This view has been shared and confirmed with most teacher throughout the world and the problem has been reiterated at IMLA conferences or workshops on maritime English.

Standard Marine Communication Phrases (SMCP)

A more detailed analysis of maritime English standards recommended in the Standard Marine Navigational Vocabulary (SMNV) and their user-friendliness will be shown in the survey of these standards as provided in the Standard Marine Communication Phrases (SMCP). Thus the analysis that holds for SMNV standards is also valid for

those in SMCP and vice versa, i.e. in cases where they overlap or show a very high degree of similarity.

The Maritime Safety Committee (MSC) examined at its sixty-eighth session (28 May - 6 June 1997) the "IMO Standard Marine Communication Phrases (SMCP)" prepared by the Sub-Committee on Safety of Navigation, inviting Members and Organisations to conduct trials concerning the use of the SMCP.

In the same circular letter (MSC/Circ 974, dated 10 June 1997) the IMO Maritime Safety Committee further suggests that trials “should be conducted on board ships, by maritime training institutes, by search and rescue organisations, by hydrographic offices, by VTS, by pilots and port authorities and by others involved in maritime communications who may be expected to use the SMCP in the future.”

Furthermore, members are requested to report the results of such “experimental use” of SMCP to the Organisation, preferably by March 1999, so that SMCP (including a draft Assembly resolution to be prepared by the Sub-Committee) could be considered by the forty-fifth session of the Sub-Committee on Safety of Navigation.

In the Introduction two precise objectives of SMCP have been set forth:

- “to assist in the greater safety of navigation and of the conduct of ship,
- to standardise the language used in communication for navigation at sea, in port-approaches, in waterways, harbours and on board vessels.”

As in the case of all the previous standards, the Sub-Committee has also issued a note of caution to the effect that SMCP is not intended

(a) to supplant or contradict the International Regulations for Preventing Collisions at Sea, 1972
(b) special local rules or recommendations made by IMO concerning ships' routeing
(c) the International Code of Signals, nor to
(d) supplant normal radiotelephone practice as set out in the ITU Regulations.

The degree of caution is, perhaps, not as necessary as it may seem, since neither

SMNV nor SMCP are in contradiction with the above conventions and regulations. On the contrary, they are both compatible and complementary.

In addition, it is firmly stated in the Introduction that the SMCP meet:

(a) SOLAS Convention, 1974, as revised, regarding verbal communications, and

(b) the requirements of the STCW Convention, 1978, as revised; in particular: knowledge, understanding and the competence to use the SMCP as required for officers in charge of a navigational watch on vessels of 500 gross tonnage or more.

No direct reference, however, is made to 1995 STCW Code which has been adopted in the meantime, though it can be stated that language standards set out in SMCP also meet the latest communication requirements of the STCW Convention.

As an acceptable safety language (i.e a restricted variety of the English language), these standards are recommended to be used, as far as possible, in preference to other wording of similar meaning.

Finally, it should be noted that the SMCP have been recommended, if not imposed, to become part of (obligatory) instruction in maritime education and training (cf. IMO model courses).

Observation

It has been difficult to obtain data on ship to ship communication although some was inevitably included in the ship to shore section and in that section concerning accidents due to communication lapses. Few recordings are available of ship to ship communication but some examples obtained are set out below. A number of these are shown as an outcome rather than a transcription but the results are of interest to the project. Also included are some cases of ship to aircraft communication which are equally relevant when considering ship to ship contacts.

When considering both ship to ship and ship to shore communication there is a need to study the technological advances that have taken place affecting the equipment used for this type of communication. The coming of new radio communication technology,

especially digital and satellite systems, has led to the establishment of a Global Maritime Distress and Safety System, which overcomes the problems of range and radio watch keeping, while at the same time leading an increasing number of shipping companies to dispense with the services of the dedicated radio officer, whose role is increasingly carried out by navigating officers.

For a variety of reasons, arising from technical, operational and manning shortcomings, the introduction of the GMDSS, with its completion date due on 1 February 1999, has not been smooth, with the greatest problems manifested as false alarms. However, some of these false alarms and many other shortcomings can be attributed, either directly or indirectly, to inadequate English skills on the part of the officers involved in GMDSS operations. These inadequacies have arisen from the increased use of maritime personnel from nations with limited provision of general English courses at school and nautical college levels.

Such problems have been recognised by several international organisations, including the International Maritime Organisation, and by individual ship owners and managers, and new training standards, which include English proficiency, have been promulgated. However, by their very nature, these standards are couched in general and largely abstract terms, and must be translated into more concrete and specific proposals for use in pre-sea and in-service courses, as well as for the assessment of competence by national authorities.

Examples of Non Communication

There is evidence that the crews of many ships either cannot or will not communicate by radio at all, in any language although the first two examples shown below seem more political than inept:

- When a serious fire broke out on the Turkish vessel *AKOVA* near the Greek island of Skyros, no distress signal or request for assistance was transmitted, as the crew did not wish to communicate with Greeks. The fire was so bad as to be visible from the shore, where the alarm was raised. (Fairplay 1998a:9)

- This report was followed by two similar incidents. In the first, the Turkish general cargo ship *BARBAROS OKTAY* ran aground off Kos, and the master refused Greek assistance. Next, the bulk carrier *HASAN BEY* initially refused Greek assistance after she lost power following a fire in the engine room. (Fairplay 1998b:9)
- The US Coast Guard reported that the crew of a vessel wanting to evacuate an injured man simply activated a manually operated EPIRB, rather than make a radio call. Two aircraft responded, neither suitable for the task, at a total cost of $90,000. (Fairplay 1995d:16)
- Another USCG officer has found that many operators seem to treat DSC and Inmarsat-C equipment as if they were manually operated EPIRBs, in that, after sending an automatic or semi-automatic distress alert, they do not respond to calls from RCCs over DSC and Inmarsat-C. (Hersey 1995:19-20)
- An official at the Australian Maritime Incident Investigation Unit (MIIU) reports many instances of 'near misses' when fishing vessels have been nearly struck by large trading vessels, both at night and in daylight, where the fishing vessel has called the ship on VHF and been unable to elicit a reply. The majority of the ships concerned were under the flag of non-English speaking nations, and the MIIU considers that in many cases the bridge watchkeeper may have been unable to understand the fishermen's radio calls.(Nick Rutherford - personal communication)

The use of telex in radio communication offers a less threatening medium to those whose grasp of English is insecure, but it may also lead to a reluctance to communicate by R/T. In the context of the GMDSS, it is particularly important to note that those operators who rely on Inmarsat-C telex for distress alerting may be at a great disadvantage when R/T is required, especially in bridge-to-bridge and on-scene communications, discussed below. It is alarming that eight out of ten candidates who failed GOC examinations do so because they are not able to verbalize distress, urgency or safety messages in English or to verbally respond to those calls (Trenkner 1996:3-3-2).

Non Standard Bridge-to-Bridge Communication

Some operators are all too ready to talk, but their sometimes ignorance of the Standard Marine Navigation Vocabulary can lead to confusion or even disaster. TSB

(Canadian Tranport Safety Board) (1992) reported on the collision between the Japanese bulk carrier *SHINWA MARU* and the Canadian ferry *QUEEN OF ALBERNI*. The first radio contact between the two vessels was initiated by the *SHINWA MARU* at 0806 and, about two minutes later, the vessels collided. Highlights of the communication between the vessels included the following:

Time	**Station**	**Text**
08:06:22	SM	... you can see me out here ...?
08:06:27	QA	... we know you are there, ... wish us to slow down or may we cross your bow?
08:06:32	SM	I'm only doing about 5 knots but I'm coming up to full so you go ahead, it's your pleasure there.
08:06:39	QA	OK, we'll slow down ...
08:06:46	SM	well, you can go ahead of me if you want but I'm picking upspeed here / it will be quite a while before I'm up to speed but, like I say, I'm working her up.
08:07:15	QA	we'll keep our eye on you and stay clear of you.
08:07:40	SM	you seem to be coming right at me ...
08:07:58	QA	we're stopping SHINWA MARU
08:08:37	SM	... you just smacked into us.

The phrasing of this exchange bears little or no resemblance to the SMNV. Among the many possible substitutions are:

C WHAT ARE YOUR INTENTIONS for 'you can see me out here'

C MY PRESENT SPEED IS 5 KNOTS for 'I'm only doing about 5 knots'

C I AM REDUCING SPEED for 'OK, we'll slow down ...'

However, strict adherence to the SMNV in the absence of common sense cannot prevent collisions.

Difficulties in SAR Communications

While distress alerts, including the ship's position, can be and are transmitted automatically without the need for any command of English, as shown above, SAR and on-scene operations demand good two way communication. The following verbatim transcript is extracted from a recording of a NATO / Partnership for Peace exercise in the Baltic. Although the phraseology (especially of numbers) was not always standard, careful repetition and a shared understanding of procedures meant that, overall, the communication was successful, despite poor reception for both

parties. In this case, also, the participants were combat fleet personnel, SAR specialists, with frequent experience of SAR exercises carried out using English in radio communication, although neither was a native speaker of English.

> 1. this is Rescue Gdynia this is Rescue Gdynia / if you need it / if you need it / helo / please say me please say me / this is rescue Gdynia / over
> 2. this is November Alfa Romeo / affirmative / I do require your helicopter at once on scene / over
> 3. you I understand you require you my helicopter on scene / I send helicopter / I am sending helicopter now / he will be on scene in fifteen minutes over
> 4. this is November Alfa Romeo / roger / out
>
> ...
>
> 1. this is Lima Echo Charlie / interrogative / are you ready for my sitrep / are you ready for my sitrep / over
> 2. go ahead with your sitrep / go ahead with your sitrep / but say it very slowly / there is a lot of jam / there is a lot of jam / you are very weak / over
> 3 ... ...sea temperature eleven (*sic*) degrees / sea temperature eleven degrees / ambient temperature thirteen (*sic*) degrees / ambient temperature thirteen degrees ... ...

(Beata Pierzynski, Polish Naval Academy - personal communication.)

Among the departures from the SMNV (see 5.1.4 below) in this transcript are:

C 'affirmative' for YES

C 'interrogative' for QUESTION (with no other message markers used)

C 'helo' for HELICOPTER

C 'eleven' / 'thirteen' for ONE ONE / ONE THREE (or rather, in the rarely-used official version: UNAONE UNAONE / UNAONE TERRATHREE)

Difficulties in On-Scene Communications

The Royal National Lifeboat Institute in the United Kingdom reported eleven incidents involving language difficulties for 1994-97, among them the following involving GMDSS compliant vessels:

- Douglas, 18 May 94 - large fishing vessel, sick crewman; 'Although there were language difficulties, the vessel had indicated that they had a sick person on board... The MRSC were now also calling in an interpreter... '
- Weymouth, 17 Dec 94 - large motor vessel, dragging anchor; ' One crew member placed aboard casualty to assist communication (language difficulties).'
- Valentia, 29 Dec 94 - large fishing vessel, sick crewman; 'communication with master of MFV *DOLORES CADRECHE* was very difficult as nobody on board

could speak English... (He) did not seem to be able to follow instructions given and was heading to a very dangerous area... Lack of communication on this service could have created a very serious situation.'

- Ballycotton, 23 Feb 95 - large fishing vessel, fire; 'The trawler was drifting ... and due to language difficulties, communication with the crew was very difficult.'
- Humber, 21 May 97 - large motor vessel, sick crewman; 'Coastguard unsure of problem with patient owing to language problems with ship.'
- Fishguard, 20 Nov 97 - large fishing vessel, fouled propeller; 'Language difficulties were creating some confusion.'

(Cdr. Mike Woodruffe, RNLI - personal communication.)

SAR helicopter crews report that their main concern is with the ability of the casualty crew to comprehend instructions, especially in relation to the correct use of the 'high line' (referred to as `hoist cable` in the SMCP) which is dropped from the helicopter to the deck. (A special section of the SMCP, Part III, 5 (5.1), has been exclusively reserved to cover communication in helicopter operations of the kind mentioned.) In cases where two way communication is likely to be important, the helicopter can be accompanied by a long-range aircraft, such as a Nimrod, with an interpreter on board. Communication between helicopter and casualty is then relayed via the aircraft. (Flt.Sgt. Paul Trethewey, winchman, 'A' Flight, 22 Squadron RAF SAR - personal communication.)

A Department of Trade investigation into the death of the chief officer of a oil rig supply vessel on 11 November 1986 found that there were communication problems between the operations manager of the rig, a Swede 'with only broken English in a broad Scandinavian accent who was panicking', and the supply vessel, which hampered attempts to direct life lines to the casualty in the water. (DoT 1987)

On the other hand, newsworthy marine accidents can give rise to inaccurate reports of on-scene communication difficulties. Thus Lord Donaldson has commented that, in the case of the *SEA EMPRESS*, 'there could be no more vivid demonstration of the need for a common maritime language than the spectacle of a huge Chinese salvage tug which could not be used because none of the crew spoke English.' (Donaldson 1996).

The official report took pains to scotch this popular myth:

It is worth clarifying also the much publicised role of the interpreter from a local Chinese restaurant. The Master of DE YUE demonstrated no knowledge of the English language but some of his senior officers spoke reasonable English therefore there was no real problem of communication between the salvors' liaison officer and the crew. However, the questioning by the Master of some of the actions required of him and the resultant discussions with the liaison officer, when relayed to those ashore, was interpreted by them as a language problem, whereupon the services of a Cantonese speaking person to act as interpreter were obtained. Although this person did pass messages to DE YUE in Cantonese which were understood by the Master the real problem was not a difference in language but a difference of views on the operation of his vessel. (MAIB 1997)

Ship to shore communications are covered in the next chapter and a good deal of the problems are the same as those experienced in this chapter. The two forms of communication are similar in many ways but with the exception that at least one of the parties to the communication may be more professionally trained in another language.

Chapter 7

External - Ship to Shore Communications

Ship to shore communication is frequent when a vessel is at sea however it becomes most important when a vessel is in coastal waters or is approaching a port of call. The ship will have to call an agent, port authority and pilot in order to arrange her entrance and stay in port and all of these communications are an important part of her safety and efficient operation.

Messages and warnings will probably be in a language that is the mother tongue of neither the ship nor the country that she is communicating with and standardisation is therefore an important part of that contact.

A great deal of ship to shore communication is done through Vessel Traffic Service (VTS) schemes. It is therefore from these schemes that a good deal of the data for this section of the report is taken to try to establish the current standards of communication. ISV worked with VTS schemes in Germany to gather information for the MARCOM project and CLCR visited both the Coastguard station in Dover and Cap Gris Nez in France.

This allowed comparisons to be made of different accents and different working practices. Both areas chosen are among the busiest in European waters and both deal with a very broad cross section of shipping allowing a range of languages and accents to be observed. Ship to shore communication also involves the Global Maritime Distress and Safety System but as this is covered in the ship to ship section it is only mentioned here to indicate its involvement.

Evaluation of Current Practice (VTS "German Bight Traffic", 1997/1998)

Results of "Radio Check Tests" made by GBT in 1993

There is a compulsory Reporting System established within the maritime VTS areas in Germany. Furthermore, according to the National Traffic Regulations, vessels must keep a permanent listening watch on the appropriate VHF (Very High Frequency)

frequencies of the respectively competent VTS Centre in the area of which they are proceeding.

The VTS Centres conduct a continuous radar surveillance on shipping traffic and contact vessels as soon as the occurrence of a critical situation is observed by the VTS Operator. The regular and effective conduct of this service supposes, above all, the readiness to communicate among all of the traffic participants.

The fact that a certain number of vessels entering the VTS area of "German Bight Traffic" or being already plotted by the electronic tracking system could not - or not within a reasonable time - be contacted via VHF produced a state contradictory to the enhancement of the safe and easy flow of traffic. These conditions had led in 1993 to the necessity to conduct inquiries in this context

The main conclusions of the 1993 inquiry had shown, in proportion to the number of trials utilized and recorded, that

- 71 % of the vessels responded at once upon first VHF call;
- 17 % of the vessels reacted - under aspects of effective traffic management procedures within an acceptable time, mostly upon repeated calls;
- 12 % of the vessels did not - or not properly, react on VHF calls by VTS.

Considering that the latter 12 % represent, in general, individual cases which were distributed contingentally within the period of trials, they do not automatically create dangerous situations. But, notwithstanding, there was a need to improve knowledge of VTS procedures including the due conduct of VHF communication. The need for intensified use of a standardized language in international shipping were ascertained yet again.

These determinations areas relevant in 1998 as they were in 1993.

Presumed reasons for insufficient communications (as far as detectable) were:

a) No listening watch was kept on VHF CH 16 and/or the appropriate VTS frequencies;
b) The VHF set on board was not switched back after completing communication on other frequencies; (e. g. with pilot cutter, tugs etc.);

c) The bridge of the vessel was not manned with sufficiently qualified personnel;

d) There was a lack of proficiency in (English) language.

Practicability of SMCP

The inner German Bight VTS area is a dedicated transit area for international shipping traffic bound for the Jade, Weser and Elbe including the Kiel Canal, and back - as well as between ports within this region. Consequently, the findings in 1997/1998 achieved by investigations into VTS communications in the area of VTS "German Bight Traffic" may be representative also for other VTS areas outside Germany, because the percentage of passing vessels not flying the German flag amounts to about 80 %.

The most significant result of the current trials is the general assessment that, on principle, the English version of SMCP is useful and practicable for the communication between a VTS and vessels under various flags even though there are certain limitations in this context at present.

Duration of Particular Communications

The quality of communication procedures between VTS and traffic participants and the duration of each radio contact may be subject to various effects, namely;

- knowledge of language (English/or German),
- type of communication (External Communications, Message Markers etc),
- prevailing conditions (traffic, fairway, weather, current etc.)

Results

In many cases standardized communication had to be replaced by "free language", i. e. sentence structures adapted to the situation and the time concerned.

The reasons for such deviations regarding the application of SMCP are predominantly explained by the shipboard lack of knowledge about the proper usage of both SMCP and SMNV.

It has to be stated emphatically here that insufficient linguistic and/or professional qualification is not necessarily any longer a characteristic of ships under certain flags - but rather traceable to sub-standard competence of communication partners on board. All the more it is deemed necessary to intensify efforts to make SMCP usage part of nautical education.

Another result of the current findings, data collection for which will be continued until the end of 1999 - are the facts that

- there is an increasing number of non German navigators on board vessels flying the German flag who prefer, depending on their national origin, the usage of English for conversations on VHF and,

- alternatively many communication partners on board vessels under international flags have sufficient command of the German language (not only Austrians and Swiss, but also Dutchmen, Belgians, Scandinavians, Poles, Balts etc.

Because of this, there is not necessarily any longer, a relationship between a vessel's flag and the language capacity of its bridge personnel.

With regard to the national origin of the shipboard communicators in relation to the appropriate reaction periods (i. e. time from first call addressed to the vessel concerned until confirmation that the message is properly understood) certain facts, which have been reported by VTS Operators before, proved again to be true.

The assessment of these problems is shown under annex 1.

Verbal Data Transmission and Existing Problems during Normal Operation

- The general data of a vessel intended to be transmitted to the VTS when navigating in national waters is given by the current edition of the seaway regulation (SeeSchStrO) by § 58. According to the announcement of the WSD Nord part V - Baltic - section 12.5, for Rostock fairways there is an obligation for vessels to report as follows:
- vessels with a length of more than 30 metres.
- vessels carrying dangerous goods
- non gas free tankers

– nuclear powered vessels

It should be pointed out here that the limitation of the obligation to report with regard to traffic observation and to ensure traffic safety is not free from problems. The frequently occurrence of leisure shipping traffic may contribute to the appearance of dangerous approaches in high traffic density situations.

Whereas information is only given to the VTS by vessels *obliged* to report a selective data-transmission to ensure collision avoidance, this is only possible in a limited way if non-reporting vessels are involved in such traffic situations.

Vessels obliged to report have to transmit a sailing plan before reaching the port of Rostock. A summary of the specified content and times required by this plan is given in **Table 7.1**

Time and position of the message	content of the message
-1 hour before passing the mole -shortly before leaving -shortly before changing the berth	a) name, call sign and kind of the vessel b) position c) length, breadth, draught d) leaving and destination port e) details about dangerous cargo f) declaration of deficiencies, defects, etc. g) owner or authorized person

Table 7.1: Requirement and content of a "Sailing Plan"

In addition to to that sailing plan, vessels obliged to report have to give position reports, also. A summary of the required content and times of these position reports is given in **Table 7.2**

Position/Time	Content
-after piloting and continuing the voyage -at passage of Tn 1 / 2 (entrance of the Seekanal) -at passage of the moles -entering/leaving the turning point -at passage of berth 60 (Warnowpier) -leaving of the fairway -at berthing/unberthing manoeuvres -at entering/leaving the roads	a) name and call sign b) position c) speed d) time of passage

Table 7.2: Content of and events initiating position reports in the VTS area of Warnemünde

By recorded communication it is shown, that rarely is full information given as required by the SeeSchStrO. Own observations and statements of the VTS staff confirm that sailing plans especially are not given completely. Therefore the VTS operators have to ask for the data in most cases, repeatedly. A spot check carried out by analysing the VHF communication of the Warnemünde fairway shows that the draught is not been reported in appr. 80 % of cases but has to be requested additionally. That means additional strain on the VHF (FM) channel. Mainly these problems occur with vessels not familiar with the fairway. There are similar statements from the VTS area "German Bight". A possible reason for incomplete reports might be seen in the multiple transmission of certain data to different adressees.

This finding is backed up by a report from the Centre for Language and Communication Research covering a vist to Dover VTS in the United Kingdom. The

reporting of vessels is listed and labelled under the MAREP scheme. Under this method, the name of the ship is recorded, along with its affiliation, its position, its current speed, its port of departure and port of destination, its maximum draught and its cargo. A ship will also report whether or not it is in ballast or gas free.

The MAREP scheme as well as the method of reporting is covered by an ‘M notice’, that is, it follows a recommendation from the IMO that ship reports are made in that particular format. In other words, the IMO has attempted to impose some kind of uniformity on the labelling and reporting of ships’ movements. However, as the operators in Dover emphasised, this is not the way things actually work out.

They claimed that it was practically non-existent for a ship to call them and give them the information in that format, they would have to ask the ship what course it was on, at what speed and what cargo it was carrying, they would have to ask him where the vessel was from, where it was bound.

As additional problems of the verbal data-transmission, uncertainty in communication and the inadequate use of prescribed standard expressions were noted. It seems that SMCP is fallen back upon only very rarely. On the one hand that might be explained by the fact that partially more information is exchanged than necessary when performing an efficient communication. Alternatively standard expressions can prove to be inappropriate even when basic communication problems occur. E.g. a considerable deviation from the standard phrases has to be used when requesting the breadth of the vessel, if the phrases "breadth" or "width" of the ship are not understood on board the ship.

Based on observations in the VTS area "German Bight" it has to be stated that additionally, a first classification of the vessels is made by the operators following the verbal communication. In case of problems in understanding each other these vessels are observed more closely for safety reasons (due to the possible danger of collision with other vessels) and the vessels might be addressed earlier and more brisky than usual, if necessary. The same circumstance applies in principle to the discipline of reporting and readiness of audio reception of the vessels in the area. If there are any deviations found by the operators in that case, these targets will be observed in a

different way to other vessels in that area, i.e. they are regarded as potential source of danger. This behaviour of the operators is based probably on experience that vessels having problems in communication often have problems in safe navigation of the area and approaching other vessels. Non readiness for audio communication or problems in communication, are considered as a first sign of a problem. Such a classification could formerly be made by using the call sign formerly, but due to the increasing internationalization of the crews this is not possible any longer. One result of a performed analysis for the VTS "German Bight" area was, that there were 12 % of non responsive vessels and 17% of the vessels responded only after several minutes of calls.

Similar statistics do not exist for the Warnemünde area. In contrast to the lack of response and readiness for audio communication it was found that the ferries calling here give their information announcement two hours in advance of reaching the Seekanal (Sea Channel) via VHF (FM). The transmission of the sailing plan is carried out as soon as radio contact is available. According to the statements of the operators this is done by the ferries to keep to their time table and in order to avoid loss of time by having to wait.

The VHF communication between the VTS and the ferries shows that there is a certain bond of trust between the operator and the ship’s officer built up due to the necessity to keep to the time table. The deviation of the prescribed standards may be justified probably with that bond of trust.

From this short analysis the following main problem areas connected to verbal data-transmission are seen to be:

1. Difficulties in communication during verbal data-transmission
2. Increased demands on the VHF channel through additional or repeated request of data.
3. Delayed, insufficient or non availability of necessary data because of inadequate readiness for radio communication.

Verbal Data-Transmission and Existing Problems during Conflict Situations

Within this report conflict situations are situations where the possibility of an occurrence of personal or material damage exists (situations with danger of collision or grounding, the blocking of a channel etc).

In case of a conflict situation there is increased necessity of exact parameters of positioning and movement (especially heading, course and speed but also rate of turn) both on board and, if occurring in VTS areas, ashore, too. These parameters will be determined by the vessel or the shore based VTS mainly by the use of radar. Assuming an encounter situation with vessels on crossing courses and conditions of good visibility to judge whether there is a risk or danger of collision, it is of fundamental relevance for all, whether the vessel which is obliged to give way according to the rules 15 and 16 COLREGS follows this rule or not.

In case this vessel does not react, then it is necessary to know whether or not the other vessel will perform the manoeuvre of the stand-on vessel according to rule 17 COLREGS in time and in an appropriate manner. The ship's name of a vessel involved in a dangerous close quaters situation can only be recognised on board at a late stage. So only an indirect address ("Ship in position ..." or "Ship on my starboardside ...") is possible, whereas direct contact in order to arrange evasive manoeuvres might be made possibly too late.

Actual vs. Standard Maritime Communications

In this section some features of actual maritime communications will be discussed as compared with the recommended variety of standard communications, notably communications in the written and spoken medium of English. Seafarers are fully aware of the fact that the language they communicate in differs greatly (a) with usage or situation and (b) depending on the users or participants in the exchange.

Officers are aware of the fact that they tend to use one type of vocabulary and units of structure and style for communicating in, for instance, discussing technical matters of the operation and control of navigating or engineering equipment or instruction manuals and another in, for example, trying to agree with another ship on the actions

to be taken in order to avoid collision (e.g. communicating in close-quarters situations, during berthing or an anchoring manoeuvre, etc.).

On the other hand, different social positions of the participants in communication or various degrees of responsibility of persons deployed on different levels of duties either in international navigational safety authorities or in the various sectors of the shipping industry, call for the availability in the speaker's communicative competence of appropriate linguistic forms. These are often referred to as registers, (cf. Crystal-Davy 1969, Beaugrande-Dressler 1981, Akmajian et al. 1995) to suit the purpose of expressing different roles in communications. (cf. The striking differences in the use of forms of address and clichéd or formulaic expressions in making contacts with a VTS station, port control, pilot station, naval or police forces, against the much less formalised style of voice exchanges with, say, one's company's permanent agents, etc.).

Recordings of VHF or MF communications, VTS, coast station or port control tapes, etc., might serve as the principal source for identifying and describing individual and prevailing linguistic forms (particularly on the discourse and text level) suitable or suited to different situations at sea and in port. Unfortunately, these are not legally permitted and no valid research can be based on such recordings, though projects of the kind have been and are being undertaken in various parts of the world (cf. the SEASPEAK project). However, much field research will be needed in the future, carried out with the permission and under the control of IMO and other international authorities or agencies, in order to obtain a better insight into the nature of the spoken variety of true maritime communications. This would allow linguistic and methodological conclusions on the different types pertinent to the safety of navigation and, subsequently, for future education and training of seafarers in maritime English and communications.

These differences can be shown here as being topic or subject-matter related and as attributed to the influence of pragmatic elements of discourse (intention, illocutionary force, connotation, i.e. not only what is being said but also what effect a certain sentence, question, threat etc. is supposed to make on the participants in an exchange). It seems that differences in use of the vocabulary (both standardising and non-

standardising, Riggs 1989) are much easier to identify, classify and describe. Therefore, appropriateness on the lexical level, i.e. choice of a suitable word, collocation or phrase, is much more likely to be mastered even by relatively less language-competent seafarers than learning elements of discourse or pragmatics appropriate to the various types of maritime situations. This is the basic weak point of the restricted languages recommended for maritime communication, e.g. SMNV, SMCP, and many textbooks in maritime communications.

Another problem is the degree of *normality* of recommended, i.e. 'restricted' languages of maritime communications (e.g. SMV, SMCP) versus the actual or real ones as applied in everyday practice. No standard language, of course, fully meets the 'normality' principle to the extent that it reads like a normal conversation or text, at least as far as voice communications are concerned.

One of the serious claims that this report tries to make is that the higher the process of standardisation of maritime communications, both concerning the standards referring to safety and those not marked for safety (business, personal exchanges, etc.), the farther the language of such communications will be from the normal language of both technical staff (officers and crew) and other members of the maritime speech community.

The effect of this claim is that the linguistic form of standard maritime communications (vocabulary, structures, cohesive discourse elements, elements expressing communicative functions, etc.) sometimes differ to a considerable extent from the cognitive structure of human thought and linguistic performance, thus rendering the instantaneous application of the rules of such a language on board difficult. Sometimes they are strongly affected by interference from normal, i.e. common language exchanges. In fact, when dealing with the same topic, the recommended language variety of maritime communications can differ greatly from what the EFL speaker perceives as normal or ordinary, or could be biased by the interference of smoothly running conversations the user has learnt or has been long exposed to.

Therefore, the minimum language standards recommended in SMNV or SMCP could have a negative effect on the linguistic competence of the more advanced speakers of English as a language for specific purposes rather than on those whose linguistic competence and performance is low or poor. However it has been the frequently stated intention of the IMO to aim these phrases at those whose English is poorest and not to reduce the general standard. This does not mean that those whose standard is higher should not reduce that standard when necessary to make themselves better understood. It would be easier for the higher standard speakers to bring down their level than the lower to raise theirs.

In conclusion it should be emphasised that the differences discussed above must be neither overestimated nor underestimated, thus reducing the linguistic evaluation of these differences to those that are communicatively significant and linguistically important.

However it has to be said that authors of the phrases and the Chairman of the IMO Working Group who is himself an applied linguist and noted expert on maritime English, did not have a free hand when developing the SNCP. They were bound to comply strictly with the instructions and terms of reference provided by the IMO i.e. to develop on the basis of SMNV and Seaspeak, an IMO 'language'. This was to be after the model of the ICAO language which already existed (MSC Doc. 60/19/10, Feb 1992.) The phrase book approach (as in the SMNV) was to be maintained which would build on a minimum level of English and the phrases drafted in a simplified version of maritime English. (NAV Doc. 39/31/16, Sept 1993)

Recorded Ship to Shore Communication

Mentioned above is a visit to a British VTS station at Dover which, along with a similar station across the water at Cap Gris Nez monitors the traffic in the Straits of Dover. During the visit the researchers were able to obtain some recordings of ship to shore communications and three of them are laid out below. Each is followed by a brief analysis.

Key

CG =Dover Coastguard

M = Ship

Sequence 7.1

1	M1:	miles just past the Ryker buoy
2	CG:	this is Dover coastguard roger sir and you're bound for er Agadir is
3		that correct sir?
4	M1:	that is right
5	CG:	roger sir and your last port of call over?
6	M1:	my last port of call was ((name of port))
7	CG:	er roger sir and you're a fish factory ship and er can you tell me the
8		ship's deepest draught and the ship's cargo sir?
9	M1:	er we are a fishing ship and no load on board and the maximum
10		draught is fifty four metres
11	CG:	er this is Dover coastguard roger sir and er could you give me your
12		position now sir er have you just come around the mm foxtrot three
13		buoy I think I have an echo there which is approximately five cables
14		from the light vessel is that your ship sir?
15	M1:	er longit er position at this moment is fifty one degrees er twenty four
16		point four four minutes and one degree fifty six ((that's right))
17	CG:	this is Dover coastguard sir I think your course is two one three at
18		twelve knots over
19	M1:	two one three yes twelve knots that's right
20	CG:	alpha three Lima x-ray six this Dover coastguard thank you very much
21		indeed sir I do see you on radar good watch to you
22	M1:	thank you very much and good bye

In this interaction the normal order of reporting is not followed at all. The ship's position is first given in relation to a buoy (line 1) and the coastguard then comes in with the ship's port of destination (line 2). The last port of call is requested *after* the port of destination has been given. Again, this inverts the standard sequencing. Dover Coastguard then gives another piece of 'information' to the ship (line 7): "you're a

factory ship", which M1 actually contradicts (line 9): "er we are a fishing ship". The Coastguard does not only inform M1 about his own status, but continues without a break into the question about maximum draught and ship's cargo. This raises the question of why he is asking for this (or any) information in this order since thus far *he* has been iterating details to the ship about (a) its destination, and (b) the kind of ship it is. Dover appears to be following no particular agenda at all, but giving out information (which M1 contradicts) and asking questions alternately:

7	CG:	er roger sir and you're a fish factory ship and er can you tell me the
8		ship's deepest draught and the ship's cargo sir?
9	M1:	er we are a fishing ship and no load on board and the maximum
10		draught is fifty four metres

Dover Coastguard forms the question about draught and cargo as a personalised request rather than as a WH- question:("can you tell me . . ?" rather than "what is . ."). Again, this is a variation on the standard request procedure. It can be argued that the 'correct' answer to "can you tell me . . ?" is "yes I can", and one which second-language learners of English frequently produce. . Again it will be noted that the coastguard officer prefers the use of "deepest draught" over "maximum draught".

M1's response (lines 9-10) deals first with the labelling of the vessel ("fishing ship" instead of "fish factory ship") before moving onto the questions of maximum draught and cargo, to which he replies in the opposite order to that in which they were asked.

There is "no load on board" (line 9) and the *maximum* draught (M1 showing a preference for the standardised terminology) is (an incredible) fifty four metres.

This last detail is ignored by the coastguard, who goes on (lines 11-14) to try and establish the ship's position, an item which normally appears at the *beginning* of the MAREP schedule. After making an informed guess at M1's position (lines 13-14), which M1 in turn ignores, M1 in turn gives his position according to routine procedure (lines 15-16). Coastguard then again informs M1of something, instead of requesting it, this time his course and speed, both of which M1 confirms as being

correct (line 19). The interaction closes with standard formulae (offering of thanks and leavetaking).

This is an unusual interaction because of the manner in which the coastguard takes the lead in relaying information to M1 about itself. Apart from the information about what kind of vessel M1 actually was, coastguard's information was accurate. Coastguard did not correct or question M1's claim that his maximum draught was 54 metres. It must be assumed that this was either misheard or else the coastguard allowed that M1 had made a mistake and did not think it necessary to question him, especially since the ship was cargo-free at the time.

Key

GN = CROSS Gris-Nez

M = Ship (numbered to differentiate vessels)

Sequence 7.2

1	GN:	seven miles port side distance zero point two miles currently over
2	M2:	seven miles ah port side disctance zero point two miles I'm a vessel on
3		your port side please come
4	GN:	zero six zero six
5	M2:	zero six
		(second ship calls in but message untranscribable due to static)
6	M2:	six five
7	M2:	this is six five to re-establish six five
8	M2:	calling channel ((load)) channel six five
9	GN:	all ships entering Dover point this is great Atlantic for information
10		((c'est)) your call please attention seventy nine seven nine pas de
11		Calais ici Atlantic pour son bulletin d'information veuillez passer
12		canal soixante dix neuf sept neuf
13	M2:	er just passing er Goodwin beacon er (bell rings) a vessel on my
14		starboard bow (.) course one nine four the speed about seventeen
15		point six knots this is the ship on your port er side (static) on my
16		starboard bow on my starboard beam course two seven one (.) range
17		about two point two er speed about seventeen point nine knots (.) it's

18		the ship on your port beam and
19	GN:	do you ((read me)) over?
20	M2:	yes I read you
21	GN:	can you repeat your question please?
		(communication with this ship terminated here)

This transmission is clearly one in which the principal speaker (M2) is attempting to make contact with another vessel (ship-to-ship) at the same time that Gris-Nez is in communication with him. Moreover, the contact is complicated by a third element, a ship calling in (possibly in response to M2 rather than Gris-Nez).

Between lines 9-12 Gris-Nez appears to be making a general announcement in, first English, then French. There appears to be a small amount of French language leakage in the English version, though this is by no means certain. M2's long turn (lines 13-18) is in fact a piece of ship-to-ship communication, directed at a vessel that M2 is in the process of overtaking. M2 produces a variation on the familiar (see 2.6) theme of "ship on your port side". We are reminded of the Dover operator complaining of the frequency of this kind of call. He becomes more explicit with the utterance "it's the ship on your port beam" (line 18), but is interrupted by Gris-Nez, who are attempting to re-establish a communication with M2 which (we assume) began before the present extract appears on tape.

As a piece of dialogue, this extract lacks any kind of teleological focus, even of the simple kind usually produced in ship-to-shore interactions, and is therefore resistant to analysis. One of the features of a restricted code, of the kind used in the majority of radio transmissions, is that they lack conjunctive relations (the linking of one passage to the next through such notions as contrast, result and time) at the same time as including an abundance of semantic redundancy. This often lends a sense of structural dislocation, or in linguistic terms, a lack of *cohesion* (Halliday and Hasan, 1976). For any sequence of interaction to be cohesive, the utterances of which it is composed need to display some kind of mutual dependence: it needs to be established that they are not occurring at random. The interpretation of discrete features within the text is dependent upon their co-existence with other textual features. When these are absent, the result is a lack of textual cohesion such as occurs in this interaction.

Sequence 7.3

1	GN:	good morning sir what is er your ship name please?
2	M3:	zelman good morning my ship's name is ((Skulttvrs Tomski)) I spell
3		it sierra kummel uniform Lima tata tango vodka romeo sierra tango
4		oscar mike sierra India (.) all right?
5	GN:	er what was your last port of call please?
6	M3:	my last port of call is Port Boulevard Ecuador
7	GN:	okay what is your destination please?
8	M3:	my destination port is Saint Petersburg Russia
9	GN:	okay what is your maximum draught please?
10	M3:	my maximum draught is set at five metres
11	GN:	okay what is your cargo on board and quantity please?
12	M3:	I have on board banana cargo and er a quantity three thousand six
13		hundred and twenty nine tonnes
14	GN:	what is your present position please?
15	M3:	my present position now is er five zero degrees thirty minutes north
16		zero zero zero five point nine minutes east
17	GN:	confirmation of your course and speed please?
18	M3:	my present course is five two point degrees and speed one six point
19		two knots
20	GN:	you're in er the south of bel Bassurelle buoy
21	M3:	repeat please?
22	GN:	you're in the south of Bassurelle buoy
23	M3:	excuse me I don't understand repeat please?
24	GN:	give me your position from Bassurelle buoy please?
25	M3:	ah okay one minute please (5 secs) is this Gris-Nez traffic charlie six?
26	GN:	this is traffic I with you
27	M3:	my present position from Bassurelle buoy three one one point three
28		degrees distance two point eight nautical miles
29	GN:	okay thank you very much for your call and co-operation back on
30		channel sixteen seventy nine er good watch and good trip er bye er
31		Gris-Nez traffic out

This interaction proceeds without noticeable problems until, at line 20, Gris-Nez demands confirmation that M3 is "in . . the south of . . Bassurelle buoy". This is not formed as a question, nor does the intonation suggest a question, but is presented as a statement of fact, or a *declarative*. In speech act theory (Austin, 1962), utterances have two kinds of meaning: (a) the propositional meaning, that is, the basic literal meaning of the utterance which is conveyed by the particular words and structures which the utterance contains, and (b) the illocutionary meaning, which is the effect the utterance has on the listener.

A speech act is an utterance which contains both propositional meaning and illocutionary force. However, a speech act might be performed indirectly (otherwise known as an *indirect speech act*) and one way of accomplishing this is to form a question as a declarative statement. One of the problems with this kind of manoeuvre, however, is that the illocutionary force of the utterance becomes lost in the course of transmission. In the example here, the information being given to M3 is redundant *as information* since Griz-Nez is only seeking confirmation at this point. What he needs to do is form a direct question that M3 can respond to. Clearly (lines 21, 23), if he has understood at all, M3 is at a loss as to what to 'do' with the information Griz-Nez is giving him.

When (line 24) Gris-Nez makes a request regarding M3's position in relation to Bassurelle buoy the problem is immediately repaired. M3 signals understanding ("okay one minute please"), confirms that his interlocutor is who he thinks it is (line 25), and proceeds to give the information (27-28) that Gris-Nez wants.

Ship to Ship and Ship to Shore Summary and Conclusions

Part of this report has been to examine the ways in which typical ship-to-shore communication takes place within the context of VTS navigation monitored by the United Kingdom, France and Germany.

It has been noted that the language used in the interactions between coastal authorities and ships' officers broadly follows the communicative code first established in

SMNV, now supplanted by SMCP, and corresponding closely with the guidelines for practice set out in the SEASPEAK manual. Where there are discrepancies between these codes and actual practice they tend to be minor ones. They can, on occasion be put down to simple error or absentmindedness (such as when speakers use the term ‘nought’ instead of ‘zero’, or fail to self-correct in the prescribed manner). However, since this section did not set out to deal with emergency or accident situations, but rather ‘typical ship-to-shore communications’, such minor slips cannot .be deemed problematic in any way.

As in Workpackage 5.2.3/1 a certain amount of attention has been paid to the wider issues of Globalization and World English. It is because of the process of globalization that a project such as MARCOM comes into existence in the first place. The changes that have come about in the maritime industry have found their most overt expression in the spread of multicultural crewing and the communication issues raised in an environment staffed by people from diverse language and cultural traditions. Many, indeed most of these people speak English, and yet the kind of English that they speak varies greatly. The purpose of a publication such as SMCP is to impose a uniformity upon that English, to make of it a simplified code that will be accessible to and understood by, all seafarers.

There are bound to be instances within such a project where, for instance, semantic content and pragmatic force are at odds with each other, or where the kind of English used will prove problematic for a speaker from a particular linguistic background. On the whole though, these are surmountable snags, which should not detract from the validity of the overall scheme.

Assessment and development of codes is a constituent element of the MARCOM project and will continue to be so. In Workpackage 5.2.2., for example, current codes of practice will be assessed with regard to the use of approved standard phrases in emergencies.

As far as typical ship-to-shore communications are concerned, there was little encountered in the systems observed that gave cause for alarm. Certain individuals expressed concern about the English language capacities of some non-native and even

native speaker seafarers with whom they made contact. But one of the basic lessons of sociolinguistics is that it is an impossible task to impose linguistic uniformity on any population, let alone one as diverse as seafarers. Reservations were voiced about the English language abilities of some operators also, but again, unless there is actual regularisation of English language standards among those employed in the maritime industry, there seems little that can be done to rectify this. Although English is generally regarded as the international language of the sea, it is not *officially* so, and regularisation therefore remains an unresolved issue.

On the whole, the codes employed for communication purposes in ship-to-shore transmissions are coherent, intelligible and useable. The further development of the SMCP will, it can be hoped, ensure and enhance that coherence, intelligibility and usability.

Possible Improvement of the Data-Transmission by use of Transponders

If the function of a transponder system in automatic data-transmission is assumed, the following positive effects (without considering here any special concept of transponder system) may be expected :

1. ship - ship data-transmission

- extensive vessel data is available (more than can be visually determined)
- logging of ship’s data independent of visibility conditions (especially in fog)
- more accurate calculation of target parameters are possible (CPA, TCPA...)
- improved estimation of the situation by :

– 100 % identification of vessels (exclusion of ambiguities : "vessel on my port side.....")
– direct logging of a course alteration of the target
– logging of vessels around bends and small islands
– logging of all vessels within at least 12 nm
– logging of the navigational status of a vessel will be possible
– better knowledge of the dimensions, draught and port of call of the target
– improved tracking of fast vessels

2. ship -shore data-transmission

- Do away with the need for most verbal communications

- complete transmission of the ships data (sailing plans and position reports)
- unambiguous identification of the vessels in the observed area, for instance by MMSI, Call Sign, ships name, position
- improved tracking of all vessels (even in narrow waters)
- reduction of the rate of target losses and converging target swaps
- possibility of permanent observation of the vessel traffic independent of the weather conditions
- non-verbal transmission of ship data intended for further processing
- availability of pseudo-AIS (data of smaller vessels tracked and identified by radar might be exchanged between VTS and vessels)

  However, with regard to the ship-VTS-ship data transmission by means of transponder it should be taken into consideration that in this way the VTS operator is removed from the assessment of potential of dangers of vessels navigating in the area. With regard to that aspect, it would not be the intention to introduce a general obligation of carrying transponders on board all vessels as this seems not to be practicable nor recommended. When considering these possible improvements the necessary technical and organizational aspects of the use of transponders were not considered.

Chapter 8

Communication at the Social Level

The last two chapters considered external communication but the report now turns to the seafarers themselves. As the ship is both a workplace and a temporary home to seafarers there is a requirement for both operational and social communication. The part which the latter plays in the efficiency and safety of the vessel has never been researched in significant depth. It can be argued on a priori basis that the ability to engage in off duty social interaction through a common language is important for cementing confidences and for facilitating teamwork in the operations of the ship, and particularly during emergencies. Conversely, difficulties in levels of understanding in multi national and culturally diverse groups in the crew may lead to suspicion, friction, the re-inforcing of negative stereotypes and a mutual lack of confidence in abilities.

This short chapter considers some of the evidence of the importance of off duty communication based on data extracted from seafarers through a survey carried out by Mori for the ITF using questionnaires and interviews. Much more in depth research on board ship is necessary to formulate and test hypotheses in this area. However, there are some interesting results from the limited approach which was possible in the present project.

The chapter gives a further aspect of seafarers thoughts as to their life at sea in the second section. Missions to seafarers chaplains offered to give a valuable insight into life at sea today by conducting interviews with seafarers visiting their missions in ports around the world. Some of the results have been produced in this section.

1) The Mori Survey of Seafarers

The team had the opportunity to add items to a questionnaire being conducted by the Mori organisation for the ITF. The survey involved 63 11 seafarers on vessels under 95 flags of registry, and took the form of recording the views of crews on how well

they understood one another. Also recorded was the perception of seafarers on a number of lifestyle items on board the vessels.

Analysis of Mori Data

The Mori organisation received over 6311 completed questionnaires from ships of 95 countries of registry. The figures of interest for Marcom were in three categories

(1) The views of seafarers of language problems on the ships, under categories;

I) No language problem

ii) Sometimes a language problem

iii) Often a language problem

2) Satisfaction by seafarers with different aspects of life on board, under the lifestyle category headings;

i) Working hours
ii) Work load
iii) Stress levels
iv) Manning levels
v) Time for sleep/rest
vi) Shore leave
vii) Tour lengths
viii) Recreational facilities on board
ix) Travel to/from the ship
x) On board medical care
xi) Contact with home/family
xii) Accommodation
xiii) Food
xiv) Pay
xv) Job security
xvi) Provision of training
xvii) Opportunities for promotion

xviii) Morale generally

xix) Support/help with problems

(3) Problems encountered in past years

I) Unfair treatment because of race/nationality

ii) Unfair treatment because of religion

iii) Physical abuse from officers

iv) Physical abuse from others

v) Mental abuse from anyone

vi) Threats against family at home

vii) Attempts to stop trade union membership

viii) Warnings not to contact the trade union body

Language Problems

The number of seafarers who often had language difficulties was 233 and those who sometimes had language difficulties was 1399. Those with no difficulties numbered 4695.

When the perception of seafarers of life on the ship are compared with levels of language difficulties an interesting pattern emerges (Figures 1 & 2). Those who often had language difficulties are the least satisfied with every one of the 19 aspects of life on the ship. Those who sometimes had language problems are more satisfied than those who often had difficulties with language but significantly less satisfied across all 19 aspects than the seafarers who reported no language problems.

Similarly, for those who reported problems encountered in the last year the seafarers who had language difficulties reported encountering a greater percentage of problems in the last year than those who had no language difficulties.

2) Summary of Interviews with Seafarers in Respect of Language

In a number of ports world-wide chaplains of various missions to seafarers volunteered to help the study by offering to interview the seafarers that used their mission facilities. All seafarers no matter what their nationality or religion are welcomed into the missions and the chaplains do a great deal of good work among them. Seafarers feel able to talk freely with the chaplains and trust them which brings out a very open honesty in their answers to questions about their lives in general.

In the following section of this chapter, Table 1 provides a breakdown of the responses to interviews undertaken with a selection of seafarers and details the answers given in respect of the languages spoken by seafarers and the languages that are used by them when working on board a ship. 58 people were questioned and there were 24 nationalities represented.

56 of the seafarers participating in the survey indicated that they spoke English, while only 2 did not use English at all. 15 use English as their national language and for the remaining 43 English is a second language. 40 of the seafarers specified the language which was used on board their ship, no shipboard language was recorded for the remaining 18. Of the 43 that did not have English as their natural language 20 seafarers used English during their daily seafaring activities while 14 did not use English at all. Of the 15 seafarers whose national language was English 6 worked on ships where the shipboard language was recorded as being English. No shipboard language was recorded for the other 9 seafarers. None of these 15 seafarers worked on non-English speaking ships.

Of the 2 seafarers who spoke no English one worked on a German speaking vessel, this being his national language, for the other no language was recorded.

As already mentioned 40 of the seafarers participating in the survey specified the language that they used at sea. 39 of these seafarers indicated that they spoke English, while only 1 did not use English at all. 6 use English as their national language and for the remaining 34 English is a second language. Of the 34 that did not have

English as their natural language 20 seafarers used English during their daily seafaring activities while 14 did not use English at all. All 6 of the seafarers whose national language was English worked on ships where the shipboard language was recorded as being English, none worked on non-English speaking ships.

Of the 20 that used English during their day to day seafaring work but were not of a nationality where English was the first language 13 different nationalities are represented. The most strongly represented nationality was the Philippines with 6 seafarers, being 50% of the Filipino seafarers recorded in the survey. This is presented in Table 2.

Of the 14 that did not use English at all a range of languages were recorded. The commonest were German and Tagalog at 3 each. However, all of the seafarers in this category spoke the language that was used on the vessel on which they were employed. This is presented in Table 3.

What is clear from the results of this sample, even though it is small is that English is clearly the commonest language in use at sea.

Conclusions

Much more research is needed to account for the correlations evident in this data, but it does suggest that difficulties in communication affects the perception of life on board the ship. Those without language problems had a more positive view of life on board and also reported encountering lower levels of discrimination, unfair treatment and other problems over the past year.

Those who had the most language difficulties had lower perceptions of all aspects of life on board ranging from working hours to basic human rights. Perhaps what is being measured in these correlations are high levels of stress which arise from the inability to understand and communicate. In which case the factor of language on board goes well beyond the requirements of technical competence.

Table 8.1 - Summary of Responses to Chaplains Interviews with Seafarers in Respect of Language on board Ship

Nationality	What languages do you speak?	And the language you would normally use on Ship?
Australia	English, Dutch. I don't speak German but I can understand it and I can make clear in German, so when a German person only speaks German I can speak a little bit of German to them to make myself clear. And in French its a little bit less and that's it.	English
Bulgaria	Bulgarian, Polish, Russian, English	Polish
Cuba	Spanish, Portuguese, Italian, English	English
England	English sometimes and a little German.	
England	English. A few words of various languages, enough to be polite and to order beer up to 5 in 10 different languages and you learn of course, obviously wherever, if you go to laces regularly you learn something of the language even just to say hello, good morning, goodnight, por favor. I can order up to 5 beers in Japanese. Japanese is actually the one language I learnt most of in my earlier life at sea, phonetically its an easier language to learn, surprisingly it is....	***...Have you ever had any difficulties in passing commands on any ships, ...?*** Not really, most of the ships I am on now most of their officers are sort of European I suppose, Croats and Bulgarians and they have generally very good English skills, the crew are Kurabass which is an ex-English colony so their English language skills are generally quite good
England	English, I've got a scouse passport which if this fellow....	
England	English. When you go abroad you can always get by, it doesn't matter where you	English

	are.....So I only speak English but I can get by.	
England	English and a bit of [French]	
England	English	We get on well with the officers who are all English. We all speak the same language and work with French.
Nationality	**What languages do you speak?**	**And the language you would normally use on Ship?**
England	English	
England	English, a little bit of French	
England	English	English
England	English	English
England	English only I can get by in basics. Basics to seamen is asking for beer and cigarettes. And the odd phrase or two in German.	
England	English and a smattering of French	
England	English. The odd words, how to ask for a beer in different countries, like Russian.	
Estonia	German	German
Estonia	English, German, Estonian	English, German
France	French, English	
France	French, English	French
Germany	German, English and some Greek. I understand a little bit of Spanish, Actually no I can't speak Spanish?	German
Ghana	English	English

Holland	Dutch, English, German, a little Finnish	Dutch and English
Holland	Dutch, English, a little German and French, learning Filipino.	The guys are learning me but it is quite difficult, so it is going slowly. ***Its good that you are learning from them I'm sure they appreciated that you're making the effort.*** Yes sure, communication it sometimes very bad because some sailors are not speaking very good English, no communication, no sailing the ship.
Nationality	**What languages do you speak?**	**And the language you would normally use on Ship?**
India	A little bit of Portuguese because we go to Brazil regularly, I did French as a schoolboy so there is a certain amount of French which I can read but... it is impossible to get the pronunciation. A little bit of Japanese... In India I speak quite a few languages, six or seven different languages in India,... anybody in Bombay ... would have four different languages really.	
India	English, Indian dialect	English
Indonesia	English and Indonesian language	English
Italy	Tagalog, Italian, English	Tagalog, Italian
Italy	Italian, English. I speak Portuguese very well, Zulu	Being an Italian ship
Kenya	English, part Arabic	English
Latvia	Russian, English, Latvian, Polish	English
Madagascar	Multi cultural language, French, very little English	They speak Arabic and French.
Middle East	Arabic, English, French. My Father and Mother speak German	Arabic. The captain is Arabic. We also have Filipino crews.
Pakistan	Seaman's language	English

Pakistan	Orduh, English	English, Orduh
Pakistan	Ordu, English	Ordu
Philippines	Filipino, Greek, English. I speak a little Spanish,	.
Philippines	English	Tagalog
Philippines	Tagalog, English, Spanish a little.	Tagalog
Philippines	English and also Tagalog	English
Philippines	Tagalog and English	English
Philippines	Tagalog, English I can understand Spanish a little bit but I cannot speak.	
Nationality	**What languages do you speak?**	**And the language you would normally use on Ship?**
Philippines	Tagalog, English	English.
Philippines	English and Tagalog. I can understand a few words in Japanese.	English
Philippines	English and Tagalog	
Philippines	Tagalog, English. Spanish**,** a little bit but we understand because we have to learn in the Philippines, not that we can speak properly but we know.	English language
Philippines	English, German Spanish and Dutch	German
Philippines	English, Tagalog, I understand a little Spanish	English
Poland	Sometimes I try speak English and I also speak German, but honestly I don't like it. I understood everything what they speak. And many people from Poland speak Russian. Sometimes if we are in Spain I can speak Spanish but only in the matter of ship business.	Polish. New crew must be able to speak some German or English.

Poland	English sometimes. English is the first language of the ship to give orders and instructions.	
Poland	English, Polish, and a little bit of German and Russian	English
Poland	English, I am still trying to learn the language	English on board
Russia	Russian , English	Russian
Sri Lanka	Sri Lankan (Sinhalese), English	English
Sri Lanka	Sri Lankan (Sinhalese). My second language is English because we were in an English colony.	
Sweden	English, Swedish and Tagalog (not fluently) I lived there for one year.	
Venezuela	English, Tagalog	Tagalog, English
Wales	English bits of kitten French	

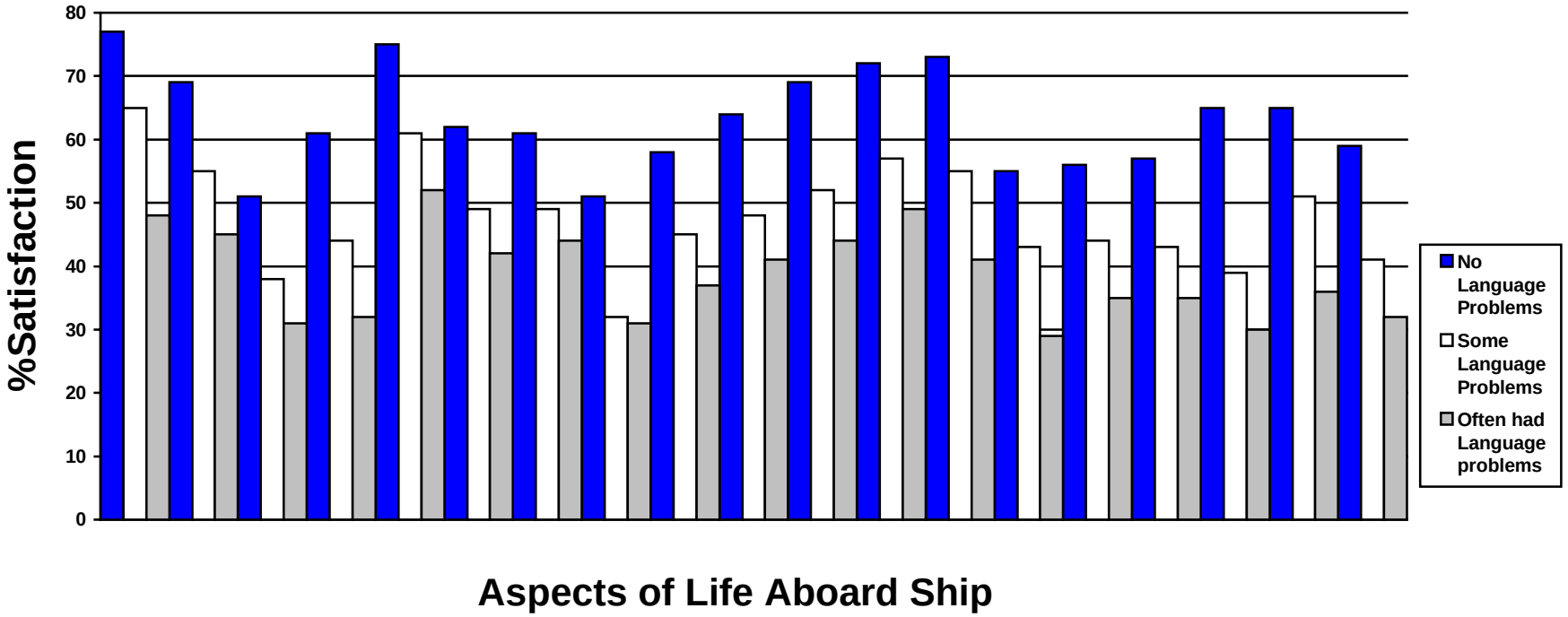
Table 8.2 - Non English speaking seafarers using English at sea

nationality	language	2nd language	3rd language	4th language	ship language	2nd ship language
Cuba	Spanish	Portuguese	Italian	English	English	
Estonia	English	German	Estonian		English	German
Ghana	English				English	
Holland	Dutch	English	German		English	Dutch
India	English	Indian dialect			English	
Indonesia	English	Indonesian			English	
Kenya	English	Arabic			English	
Latvia	Russian	English	Latvian	Polish	English	
Pakistan	Ordu	English			English	Ordu
Pakistan	English				English	
Philippines	English	Tagalog			English	
Philippines	Tagalog	English			English	
Philippines	Tagalog	English			English	
Philippines	English	Tagalog			English	
Philippines	Tagalog	English			English	
Philippines	English	Tagalog			English	
Poland	English	Polish			English	
Poland	English				English	
Sri Lanka	Sri Lankan	English			English	
Venezuela	English	Tagalog			English	Tagalog

Table 8.3 - Non English speaking seafarers not using English at sea

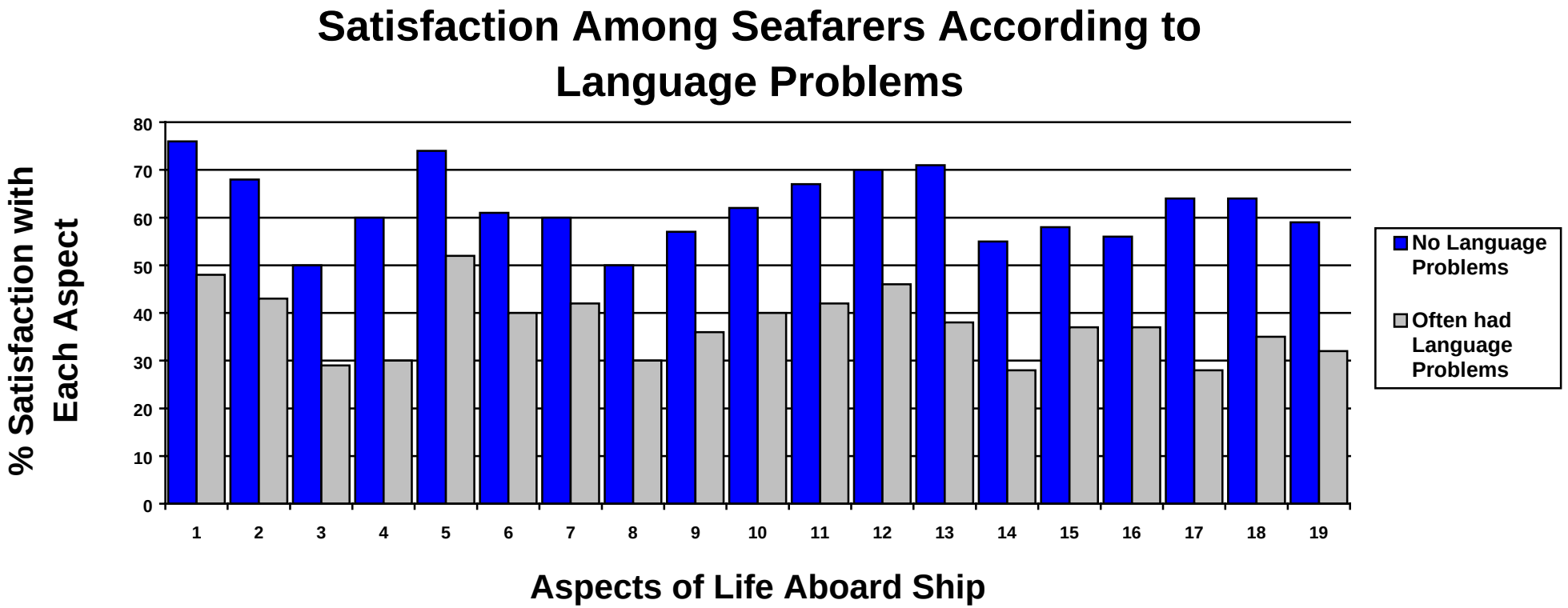
nationality	language	2nd language	3rd language	4th language	ship language	2nd ship language
Bulgaria	Bulgarian	Polish	Russian	English	Polish	
Estonia	German				German	
France	French	English			French	
Germany	German	English	Greek		German	
Italy	Italian	English	Portuguese	Zulu	Italian	
Italy	Tagalog	Italian	English		Tagalog	Italian
Lebanon	Arabic	English	French		Arabic	
Madagascar	French	English			Arabic	French
Pakistan	Ordu	English			Ordu	
Philippines	English	German	Spanish	Dutch	German	
Philippines	Tagalog	English			Tagalog	
Philippines	English				Tagalog	
Poland	English	German	Russian		Polish	
Russia	Russian	English			Russian	

Satisfaction Among Seafarers with Different Aspects of their Lives by Language Problems

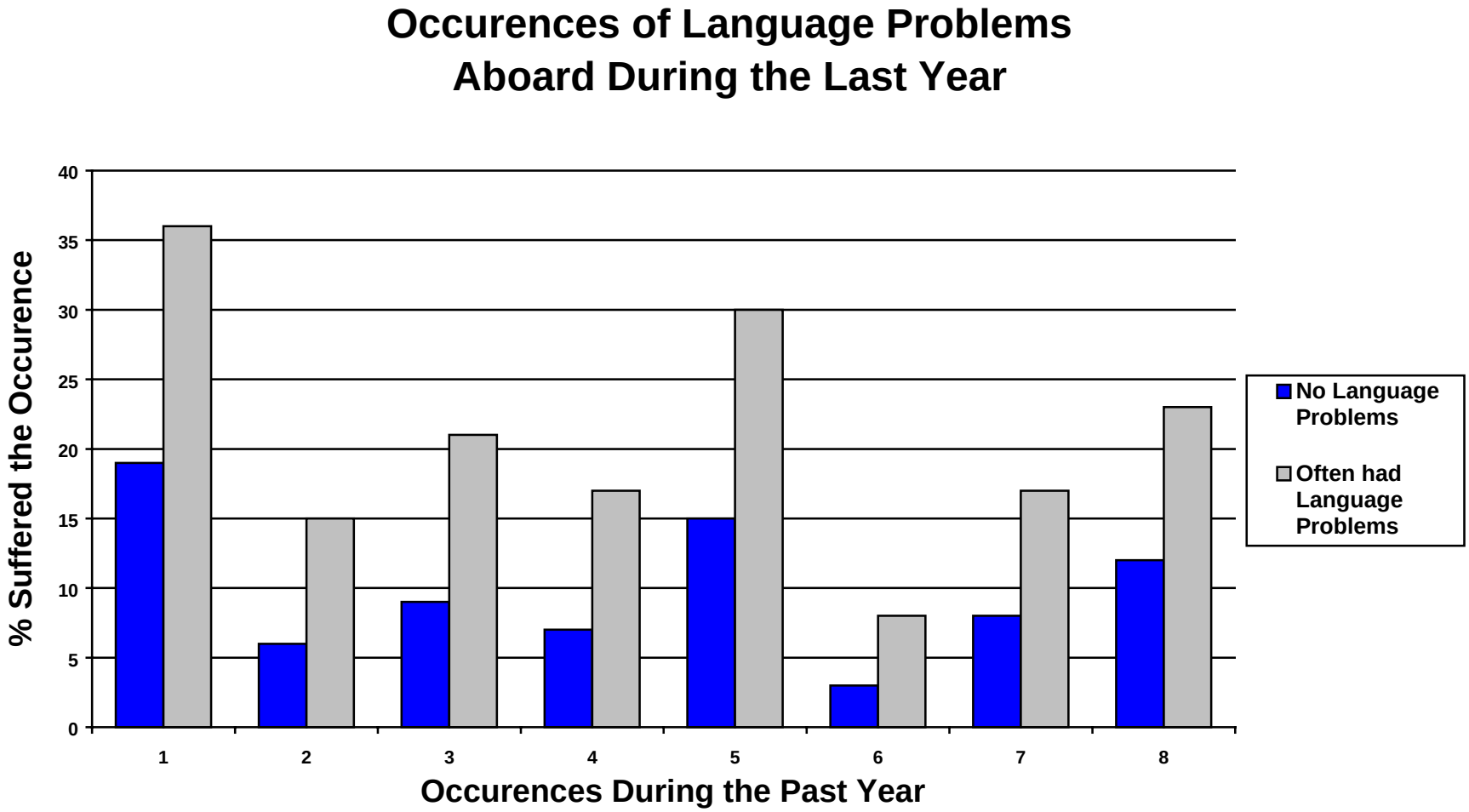


Note

The nineteen aspects of seafarers lives were 1) Working Hours 2) Workload 3) Stress Levels 4) Manning Levels 5)Sleep/Rest Time 6) Shore Leave 7) Tour Length 8) Recreation Facilities 9) Travel to/from Ship 10)Medical Care 11) Contact with Home 12) Accommodation 13) Food 14) Pay 15)Job Security 16) Training 17) Promotion Opportunities 18) Morale 19) Support with Problems.



The nineteen aspects of seafarers lives were 1) Working Hours 2) Workload 3) Stress Levels 4) Manning Levels 5)Sleep/Rest Time 6) Shore Leave 7) Tour Length 8) Recreation Facilities 9) Travel to/from Ship 10)Medical Care 11) Contact with Home 12) Accommodation 13) Food 14) Pay 15)Job Security 16) Training 17) Promotion Opportunities 18) Morale 19) Support with Problems.


Occurences of Language Problems
Aboard During the Last Year
% Suffered the Occurence
40
35
30
25
20
15
10
5
0
1
2
3
4
5
6
7
8
Occurences During the Past Year
No Language Problems
Often had Language Problems

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Workpackage 5.2.2/1: Report on Language Use With Reference to VTS Communications

1. **Changes of relations between vessel's flag and - presumably - language proficiency of shipboard interlocutors, and conclusions**

   For the object of this report it was also undertaken to find certain interrelations between the reaction time of the ship station to the call transmitted by VTS GBT and the language background or nationality, rsp., of the officer of the watch (OOW) on the navigation bridge of the individual vessel responding (or not) to the call. This attempt failed leaving the researcher disappointed since the findings expected would have definitely been of high interest for it can be assumed that there will be revealing interrelations.

   The reasons for this failure can be summarized:

   - The flag state or registration of a ship called is no longer a reliable indication of the nationality of her OOW to the VTS Operator. This is due to the fact that the number of multilingual bridge teams is growing so that in more and more seafaring countries, even in traditional ones, those so-called "mixed" bridge teams are prevailing. In vessels flying the German flag, for example, one will find (non-German) OsOW who are able to reliably communicate in the English language only and not in German, this is especially true for ships sailing in the Second Register. Or, on the other hand, there are many vessels under flags of convenience, for instance, of Antigua & Barbuda, and Cyprus whose bridge teams are composed of German and/or Austrian officers speaking English as a foreign language at a level they have learned at maritime academies and improved during their careers. These things are representative rather than singularities, since it's common recruiting policy of shipping companies world-wide.

- For the untrained VTS Operator's ear, and even for a trained one, it would be nothing but a guess to conclude from the ship's officer's accent to his/her language background. One way to find out the language background of an OOW speaking English as a foreign language would have been to simply ask him/her, but this approach was considered not to be applicable for reasons of practicability regarding the VTS Operator's tasks and fearing that an inquiry like this could interfere with the personal integrity of those asked. However, VTS Operators seem to have a certain practice identifying bridge staff of the East Asian region, e.g. of Japan, China, Korea or the Philippines, by their accents. This is facilitated by the fact that vessels from this area are predominantly manned with monolingual bridge personnel originating from the countries the callsigns indicate.
- However VTS Operators still have severe language problems with speakers from that region. Their command of maritime English is frequently unsufficient resulting in longish dialogues between VTS Centre and ship. This is nothing but a general statement which is difficult to quantify exactly for the reasons mentioned above. One should add that the countries in question, e.g. Japan and China, are well aware of this situation and they have been among the first to introduce the SMCP into the syllabi of their maritime training institutes, into state-owned shipping, qualification and refresher courses, etc.
- The following relatively vague résumé, nevertheless, might be drawn:
  The greater what we like to call the "linguo-geographical distance" of the speaker's, i.e. ship's officer's mother tongue from the English language, the more complicated maritime English VTS communication.

2. Results of the inquiries 1997/1998.

The results of the current trials were, until today (May 1998), not as positive as primarily anticipated.

The VTS-operators, altogether 12 (there are always two experienced navigators [1 Master's certificate/1 Mate's certificate] on duty for the sector "German Bight Traffic") have particularly stated following determinations and annotations:

- SMCP is not yet or only scarcely known for the reasons mentioned before - almost irrespective of the vessel's flag. Consequently, vessels answer - if contacted according to SMCP procedures - almost without exception in "open" language.
- Insufficient proficiency in English makes the use of SMCP difficult or even impossible, so that often dialogues must be continued using some kind of "broken" English. (A typical question addressed to the VTS is the one about the essence and purpose of the Message Markers!)
- In cases where the officer on the bridge of a vessel spoke excellent English there were normally no significant communication problems determinated - irrespective of whether SMCP was used or not.
- The latter is again a reference to the fact that the enacting and efficient use of SMCP is dependent on the accomplishment of global standards for nautical education including maritime English instruction.
- In connection with the use of German as communication language (only in about 20 % of the radio contacts) no particular problems have been reported. This fact makes it again clear that mutual, unambiguous understanding depends decisively on the condition that both of the participants have sufficient knowledge not only of the communication procedures but also of the appropriate language to be used.

3. Outlook

On this occasion the basic communicaion aims and demands according to STCW 95 are quoted in the form of an abstract as follows:

"Taking into account the importance of command of English for communications, relationship and teamwork onboard ship in general and for martial safety in particular STCW 95 contains several language requirements:

Function: Navigation at the operational level

Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Use the **Standard Marine Navigational Vocabulary** as replaced by the IMO Standard Communication Phrases and use English in written and oral form.	<u>English language</u> Adequate knowledge of the English language to enable the officer to use charts and other nautical publications, to understand meteorological information and messages concerning ship's safety and operation, to communicate with other ships and coast stations and to perform the officer's duties also with a multilingual crew, including the ability to use and understand the **Standard Marine Navigational Vocabulary** as replaced by the IMO **Standard Marine Communication Phrases**.	Examination and assessment of evidence obtained from practical instruction.	<u>English language</u> Navigational publications and messages relevant to the safety of the ship are correctly interpreted or drafted. Communications are clear and understood.

The MARCOM Project

Final Report

Volume 2

The Impact of Multicultural and Multlingual Crews on MARitime COMmunication

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The MARCOM Project

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MARCOM Final Report

Volume 2

Tables in Volume 2 **Page**

Introduction

This volume consists of the work that has been done on education and training in the communication field. The views of language teachers in maritime training establishments world-wide were sought by questionnaire and by interview. Those views were found to be as diverse as they were concerned.

Chapter 9 considers current standards of education and training and explains the project goals in this volume.

Chapter 10 examines the current standards of English language teaching world-wide. Teachers use their own methods and syllabi to teach maritime English and have no common method or standard.

Chapter 11 studies the alternative methods of delivery for language teaching. Again there was found to be no common method or system in use. New teaching technologies are examined and judged as to their usefulness to training establishments.

Chapter 12 looks into the background and methodology of the teaching of maritime English as a type of English for special purposes. It considers how ESP might be used in specific situations.

Chapter 13 explains what a pilot syllabus for the teaching of maritime English should consist of. It considers that a single syllabus would probably be insufficient to cover the many classes of persons who use maritime English.

This volume stands as an important set of guidelines for the way in which maritime English syllabi should be created. It points out the different ways in which English is used as a maritime language, who uses it and who should use it. It is hoped that these building blocks can be utilised to produce common goals in language teaching for those who wish to follow a career at sea.

Chapter 9

Education and Training Requirements

One of the aims of the MARCOM project is to attempt to evaluate current English language teaching methods and provide a basis for effective communication training. This would involve producing a form of pilot syllabus as guidance to teachers world-wide. Alternative methods of designing appropriate materials would be considered to update current methods of teaching.

This proved to be a great deal more difficult than had originally been anticipated because the range of teaching materials in use was so diverse. Teachers everywhere had their own ideas on teaching methods but a common thread seemed to be that few were certain that their methods were precisely what was wanted.

This section covers the methods and difficulties involved in producing such a standardised form of teaching. It considers the problems encountered in maritime training establishments all over the world in attempting to pass on to their students the standards that those institutions think appropriate.

Current Standards

Maritime education and training are under scrutiny as institutions around the world examine their course offerings and content to ensure that they are preparing safe and capable seafarers and that they are in compliance with the International Convention of Standards of Training, Certification and Watchkeeping for Seafarers (STCW 1978 as revised and adopted by the IMO in 1995). One focus is on communication and providing seafarers with the English language skills they need for competent communication in international situations and as part of multilingual/multicultural crews. However, on a world-wide basis there is little co-ordination in terms of language use, syllabus design, course content, assessment tools, teaching materials and teaching methods. Each country over the years has developed its own systems,

albeit with some co-operative agreements as well as shared educational heritage and maritime tradition.

This section of the report summarises some of the findings obtained to date concerning the world-wide status of communication standards and assessment tools in maritime colleges and similar institutions and following are some of the initial observations that the project made :

- Current standards for maritime communication are considered by most maritime educators to be too vague as currently defined by the International Maritime Organization (IMO).
- Individual maritime English teachers frequently establish the content and standards for their courses rather than national or maritime policy.
- National or institutional examinations for graduation or certification establish standards in some countries.
- Many respondents expressed concern that language testing was primarily being conducted for reading comprehension, vocabulary, grammar and general English. They felt that listening and speaking skills were important but were not being tested and this meant, in some cases, were not being taught.
- Maritime English teachers often create their own teaching materials and tests.
- There is wide variety in maritime English and general English teaching content and methods.
- There is wide variety in the number of hours allocated for English instruction.
- Many maritime educators believe that English teachers should have seafaring experience as well as English teaching expertise.
- If seafarers do not learn English communication skills as part of their education, their employment opportunities are limited.

- The language of instruction, language of text books, and language of examinations or certifying tests are not always the same.

- Technological support for English teaching ranges from none to the most advanced.

Project Goals

The overall two year goals of the five project deliverables in 5.2.6 as stated in the technical annex were to provide an "evaluation of current education and training schemes based on maritime standards conducted by maritime colleges on a world-wide basis [and] to assess critically the content and presentation of such training and to develop alternative methods of presentation in a technological mode." The design toward reaching these goals is divided into five deliverables. The first activity involved examining existing maritime communication standards in use around the world in maritime colleges along with related assessment tools.

Initially the method was identification of issues related to current standards and assessment tools then to narrow these into questionnaires that would be broad enough to relate to the variety of world situations, yet specific enough to encourage responses. This was then field tested with maritime educators from fifteen different countries and revised.

During this process, a list was made of all countries in the world by the geographic regions of Africa, Asia, Central America and West Indies, North America, South America, Europe, and Oceania. For future evaluation groupings may be made based on language use, historic ties, maritime training goals and/or shipping activity. All those without maritime training locations were eliminated although note was made of those having co-operative agreements with other countries. Using International Maritime Organization (IMO), World Maritime University (WMU) and other lists, names and addresses of maritime training locations were added. In some locations where there has been rapid growth and change, such as the Philippines and China,

assistance was provided by professionals associated with WMU to prepare the best possible up-to-date lists with contact names and addresses.

The questionnaire included four parts. The first part requested general contact information. The second part sought to identify language and assessment use. The third part listed courses and modules as well as different levels of learners (master, deck officer, chief engineer, dual purpose officer, deck rating, engine rating and/or dual purpose rating). The respondent was asked to identify the extent of English used in these courses. The fourth part asked about English language expectations.

The interpretation of the meaning of the first questionnaire's questions in English is core to the issues of this project. It seemed difficult to find the words that would have the exact same meaning to everyone around the world. The process of discussing what these educational terms mean in different countries will provide valuable information for future studies and assist with future clarity.

The placement of the maritime education and training institution(s) in a country's system can have a major effect on the nature of the institution and its ability to change. There is great variety as to exactly which agencies are responsible for maritime education, training and assessment. In some cases more than one has responsibility and decisions concerning such matters as curriculum and staffing can be complex and slow, this can also be true when only one agency is involved. Usual responsible agencies are: the Ministry of Education, the Ministry of Maritime Affairs, the Ministry of Transportation, Administration, and/or the Navy. Sites can be, for example:

- a department of a university,
- a college in a university,
- an independent institution,
- a government sponsored independent maritime college,
- an institution government operated under a ministry,
- a regional maritime college, or
- a military operated college

A country's language policy is one of the main determinants for establishing the type of English language training provided. On a world-wide basis, the full range of situations exist with monolingual, bilingual, and multilingual language policies and customs. Increasingly, countries are adding English as part of the options or requirements in their elementary and secondary schools. For maritime education and training institutions, the amount and depth of elementary and secondary English training directly relates to their language policy. Many do not need to offer general English for English competency can be expected from applicants. Their focus can be on maritime English. Others must anticipate needing to provide instruction in English as a Second Language (ESL) as well as maritime English.

However, there is not universal agreement on what type or amount of English seafarers need for different situations. Following are a few of the opinions that are voiced:

- Only the master and radio officer need to know English to talk with the pilot and to communicate with shore.
- All crew members in multilingual/multicultural crew environments need to know English to be able to communicate in an emergency situation and have a trusting onboard environment.
- In an emergency situation a second language will be forgotten and sign language is all that is needed.
- Attitude is the critical factor; if the master creates a co-operative environment, crew members communicate even if they do not have a common language.
- Only a relatively few basic words and phrases are needed and if these are learned, no other English training is necessary.
- All seafarers must have basic English and then learn maritime phrases in addition if dependable communication is to take place.
- Speaking and understanding are the most important skills.
- Seafarers must be able to read documents and write reports.

Captain Fred Weeks in his paper, "Whither Maritime English," presented at the WOME 9 conference, June 1997 identified seven types of English the maritime

English lecturer needed to consider in deciding “how the precious hours of English teaching should best be spent.”

1. Standard English
2. Standard English with ‘Belonging’ (maritime) English
3. Survival English for shipboard use
4. Maritime business English
5. Technical English
6. Communication English, specifically for use over voice radio
7. Standard communication phrases, as exemplified by the IMO Standard Phrases

Standards for Maritime English

The Standard Marine Communication Phrases replacing the Standard Maritime Navigational Vocabulary are an attempt by the maritime community to standardise English interaction. However, upon examination of what was being taught, to whom, for which levels and situations and by what methods, there appeared to be great diversity on a world-wide basis. Escuela Superior de la Marina Civil de Bilbao developed the following list of courses and modules that may include maritime English content. VHF Procedures and messages

- VHF distress, urgency & safety procedures
- Ship identification
- Ship’s structure
- Safety equipment and operations
- Navigational equipment and operation
- Weather
- Helicopters
- Medical and welfare
- Salvage and towage
- Port entry
- Cargo operations
- Dangerous goods and pollution

On-board communication

- Safety and announcements

- Emergencies
- Watchkeeping
- Manoeuvring, anchoring and berthing
- Ship's machinery
- Maintenance instruction
- Statutory safety drills
- Pilot embarkation/disembarkation

Use of publications

- Charts and nautical publications
- Operator manuals for equipment
- Instructions for action in survival craft

Ship's management

- Ship's documents
- Insurance
- Shipboard organization
- Maritime law

Medical and welfare

- Safety equipment and operations
- Salvage and towage
- Pollution

Respondents identified inconsistencies in language use in maritime instruction, texts and examinations. Instruction might be in one language with examinations and assessment tests in another. Most locations taught in a language other than English and reported not translating technical English terms, but a few reported translating all terms. If the official language of instruction is English in a limited English speaking country, liberal use is often reported of using translation in class when material is not understood. In many instances this is said to be a phased in approach to changing the language of instruction.

In addition to what to teach, another concern was how to evaluate the seafarer's English ability and at which points in his/her career. Here again there was little agreement. One method was to establish a level of course or number of hours and

once these were completed the individual was determined to have enough English ability. This method has to be closely tied to established levels of entrance and instructional content. Another method was to test the individual's ability in some way. This required agreement as to the standards and uniformity in content and administration of examinations. Yet another method was to describe expected competencies for different levels of seafarers and have ways in which individuals could demonstrate their competency to communicate in these situations.

English Language Assessment Tools

There is great variety in assessment methods. Following is a list of the methods used to determine admission or placement and to determine exit competence. In most cases, this is the actual wording of the respondent and abbreviations may be for local tests. Clarity on this will be obtained later in the report.

Entry level assessment methods

- No English language entry requirement because we do not teach in English
- No English language necessary because we are an English speaking country
- Secondary school graduation required and this includes English ability
- College's general system of admission
- High school knowledge of English
- Grammar school advanced level
- National English test including one or more of:
    - general English
    - listening
    - speaking
    - reading comprehension
    - writing
    - grammar
    - vocabulary
- Locally devised test or internal exam including one or more of:
    - general English
    - listening

speaking

reading comprehension

writing

grammar

vocabulary

- General Admission test that includes English
- Five point exam system (excellent, very good, good, poor, very poor)
- Demonstration of ability to translate between English and county language
- Ability to hold a normal maritime conversation
- Interview
- COSCQ SZPT, Band 1 English
- ALCPTS
- TOEFL exam
- National Exam O level
- Seems reasonably fluent

Exit level assessment tools used for determining English language ability

- Ability to communicate in distress situation is demonstrated
- Basic academic standard & experience
- Cambridge 1st Certificate or Proficiency
- Certified by university
- Meets the requirements of the State Inspector of Shipping
- State run College English Test (CET)
- Continuous assessment is done
- Credits required are received
- Diploma exam
- English teachers' evaluations
- Seamen's English Post-Proficiency Test (SEPT)
- 70 % ECL
- Levels BFEM
- Banding
- National Exam O level

- National Certification achieved
- Observed ability to express
- Pass 50 %
- Spoken English ability demonstrated
- Test arranged and marked by school
- Theoretical and practical tests
- Written exam
- 80% on a general maritime English Examination
- Ability to use IMO vocabulary and Seaspeak
- National English test including one or more of:
    - general English
    - listening
    - speaking
    - reading comprehension
    - writing
    - grammar
    - vocabulary
- Locally devised test including one or more of:
    - general English
    - listening
    - speaking
    - reading comprehension
    - writing
    - grammar
    - vocabulary

Equating the comparable worth of different examinations and assessment methods used at different world locations was a complicated task often faced by graduate school admission officers. Their solution usually was to require all students to take a world recognised and administered test. Some maritime institutions are using existing general English tests. Some other, such as China and Bulgaria, have designed their own maritime English tests. Most developers of tests wished to keep the contents

confidential to avoid an error being made and the content being distributed to students.

Mention needs to be made here of when assessment takes place. More than one respondent discussed this issue. In one case, the first admission test was maths and an applicant would not be allowed to take other admission tests unless there was a high score on the maths test. The result was that all those admitted had strong maths skills but not necessarily strong language skills. In other cases all test scores were lumped together for one admission score. Even though an English test was given as part of the assessment package, a student could be admitted who had no knowledge of English. The same could be true upon exit.

Content and Methods of Teaching

In information obtained on the content and methods of teaching the most frequently mentioned concern was that maritime English teachers needed to have maritime experience as well as English teaching ability and that the vast majority did not. There were exceptions; in Poland at Szczecin Maritime University all the maritime English teachers are required to go with students for practice on one of the training vessels. According to Elzbeieta Plucinska in her paper, "Upgrading the Maritime Register of English Teachers" presented at the WOME9 conference, June 1997, "It is very difficult sometimes to explain a term or a phrase if someone has not spent at least some time aboard the ship or if he has not taken many long walks in the harbour looking at the way the things are being done there." On the other side, students have commented on how boring subject matter teachers are in their method of teaching English. As communication standards are often initially indirectly determined by English teachers, it will benefit the maritime industry if they have seafaring experience and well as training in English and language teaching methodology.

Following is a brief list of some of the methods identified in English language training

Cases

An "English Day" program requiring English conversation all day

Grammar based instruction

Individual learning

Native speaker conversation teacher

Peer tutoring

Simulations in class

Student work groups

Teacher centred lectures

Teacher/student meetings

Translation

Visual demonstration

Maritime English text books written by local professors

Vocabulary recognition

Workbooks, pre-printed

Respondents to the first questionnaire were asked to identify technological aides used for language instruction. Some commented that they had no technological aides or mentioned only one tape recorder being available. A wide range of possibilities exist for the delivery of maritime English, but it is not available to all countries and locations. Following is a list of those identified

Audio equipment

Cassette recorders

CD-Rom instructional material

Computer lab

Computers for word processing

Computers for language activities

GDC lab

Internet communications

Internet sites (weather, shipping, maritime law, etc.)

Language Technological Aids (LTA) laboratory

Language lab

Language lab used as communication simulators for voice radio communications

Overhead projector

Personal Computer (PC) used as GMDSS simulators

Satellite resources selected for use

Self-instruction facilities

Simulator: Language lab used as communication simulator for voice radio communication

Simulator: Navigation

Simulator: Radar

Simulator: PC used as GMDSS simulators

Simulator: Shiphandling

Simulator: VCR

Simulator: VHF

Simulator: VTS

Slide projector

Walkie-talkies for external & onboard communication

Listening to television conversations

Virtual Language Laboratory

English radio station

On Board Learning Options

Although it was not a clear objective of this report to evaluate on-board training, sufficient respondents mentioned it as a possibility that it seemed valuable to include it as one of the training options. A wide variety of opinions exist as to whether or not is it possible to expect, require and/or support on-board language training. Some seafarers spoke of captains who supported and assisted them to learn and practice English while on-board. Others say this rarely happens and, if it did in the past, it is no longer possible on ships that have fewer crew members with more duties. The reality seems to be that the availability of learning possibilities varies with the type, size, location and management policies of the individual ship as well as the motivation of the learner.

Many seafarers interviewed spoke of problems with the learning environment on ship. Sometimes language learning materials are kept by an officer and a crew member may be hesitant to request them and admit a learning need. One seafarer interviewed spoke

of shipboard life as a prison environment and after a few months the psychological attitude that took over did not encourage learning.

Many educators spoke of the possibility of using a computer for learning, both in an on board system and in a linked interactive system. Again, the realities at the current time seemed to indicate that this is not a frequent opportunity. Computers are designated for other uses and only available to crew members for learning uses at limited times, if at all. Time differences make active link-ins to join classes difficult. Time is not allotted for such activities. The possibility remains, and further study is needed, to identify effective ways on-board education can take place.

Chapter 10

Current English Language Teaching

Most English teachers in maritime institutions have little or no contact with their counter-parts at other schools. They design their own syllabuses and are totally responsible for the content. Many have prepared text books that are produced locally. however, they generally report that they do not have the materials they need.

Roughly 18% have maritime experience. The average class size is 23 students, but some have as few as 6 or as many as 55. 15% of the countries have schools with over 35 students in English class; 6% have ten or fewer students. The mean student age falls between 18 and 29, but the range of ages can be high. In 43% of the countries that range is two to six years, but in 15% that range is over 20 years. Sea experience was identified by teachers and students as a turning point in motivation

Table 10.1

Average Class Size

	All	Europe	Asia	SA*	Other*
Average class size	23.4	23.5	30.8	15.7	17.5

*Not enough country representation to be able to be considered accurate.

Table 10.2

Grouped Numbers of Students Per Class

numbers of students in a class	percent	number
10 and under	6.4%	3 of 47
11 - 16	25.5 %	12 of 47
17 - 25	36.2%	17 of 47
25 - 35	17.0%	8 of 47
35 and over	14.9%	7 of 47

Maritime English Instruction

The Institutions

Questionnaires and site visits were used to obtain information about the institutions and these indicated that there was some variation between them. In some countries maritime instruction is at a technical high school level; in others it is part of the university system. Some institutions are relatively independent and make their own curriculum decisions; others are part of a national system and follow national designs, but many systems are in the process of changing. Entry criteria varied but many teachers stated that the ability to speak English was not a critical factor.

Teachers

Individuals became English teachers in maritime institutions for different reasons. The most common answer was that it was the job available when they were looking for a job. One woman had sailed with her husband and combined interests in this way. Another was interested in teaching adults and enjoyed working with maritime students. Others had wanted maritime careers and for a variety of reasons this was not possible, so they had chosen a profession that would allow them to be connected. Most maintained contact with graduates and enjoyed the maritime field.

Table 10.3 English Teachers with Maritime Experience

Eng. Teachers with maritime Experience	All schools (39)	Europe schools (22)	Asia schools (10)	SA schools* (2)	Other schools * (5)
0 experience	24	13	7	1	3
1 teacher	9	6	0	1(out of 5)	2
2 teachers	3 (6T)	2	1(2 out of 6)		
3 teachers	2 (6T)	1	1 (3 out of 30)		
other	1 (8T)	Poland discussed	1 (8 of 18)		
Total number of teachers: full and part time	161	62	83	5	11
In 24 schools the maritime English teachers have no maritime experience = 62% 29 maritime English teachers out of the 161 reported have maritime experience = 18%					

*Not enough country representation to be able to be considered accurate.

The qualifications to be a teacher of English in a maritime institution vary. Self reporting indicated that qualifications are:

Table 10.4 Requirements to Teach English

Requirements to teach English	All	Europe	Asia	SA*	Other*
Certificate	1				1
University degree	10	6	3		1
English degree	7	5	2		
Eng. lang. teaching degree or ESL degree	1				1
Linguistic degree	1	1			
English and teaching degrees	3	1	1		1
University degree or certificate teacher training college	1	1			
MA in English	1	1			
MA and teacher training	1	1			
Degree and maritime experience	1	1			
Master mariner license or deck officer	2	1	1		
Aboard ship time and Ph.D.	1	1			
Bilingual	1	1			
Correspondent	1	1			
Proficiency in English	1			1	
None	5	1	3	1	

*Not enough country representation to be able to be considered accurate.

The main conclusion is that qualifications range from none to a higher level graduate training combined with sea experience. Some locations required teacher training and some did not. Few required the specific training in teaching English as a second language.

A few teachers without maritime experience had found that they could arrange without cost, to sail with a shipping company for the purposes of gaining experience and collecting information for teaching. They obtained “real life” materials for use in their classes. Their administrators had supported their time doing this and the teachers felt it made them more interesting as teachers and more able to relate to the students. These times at sea ranged from a week to seven months.

Motivation

The most important factor in language learning is motivation. Many factors beyond the control of the teacher influence this, such as how selective the school was, the prospects for employment, and the country attitude toward language learning. Over and over again, however, sea experience was identified by teachers and students as a turning point in motivation. Students considered English to be just another subject until they went to sea as part of their training experience or for employment. They returned, in many cases, very aware that they had not been able to communicate as they would have wished with the international crew. They also fully understood that their future employment might be limited if their English was sub-standard.

Course Content

A general consensus was that there was more to teach than could be taught in the time allowed. Choices had to be made between teaching the students , for example, to be able to read and understand such documents as bills of lading and landing documents, to be able to read and understand IMO English and codes and conventions related to seafaring, and to be able to learn the vocabulary and context for reporting medical emergencies.

Table 10.5 English Class Content

Content	Total	Europe	Asia	SA*	Other*
Reading skills	89.4%	93.3%	70.7%	100.0%	100.0%
Speaking skills	73.5%	84.4%	35.0%	81.8%	100.0%
Listening skills	69.0%	65.9%	65.0%	81.8%	77.8%
Writing skills	60.2%	71.1%	30.0%	63.6%	77.8%

*Not enough country representation to be able to be considered accurate.

As seen above, the largest percentage of content reported is reading skills followed by speaking skills. However there is a dramatic difference between Europe and Asia. Speaking is taught in 84% of the classes in Europe and in 35% of the classes in Asia. Writing is taught in 71% of the classes in Europe and in 30% of the classes in Asia.

A maritime English text is used in 79% of the classes although observation revealed that this was frequently done with photocopies of pages or shared text books owned by the school. Maritime articles are reported as being used in 43% of the classes. A grammar text was being use 40% of the time.

Roughly half of the countries have schools with language laboratories available and 43% had computers for classroom use. The most used teaching methods are traditional—the blackboard/whiteboard, teacher centered lectures and translation

Materials

Many teachers reported that they did not have the materials they needed, especially in their efforts to incorporate the Standard Marine Communication Phrases. One teacher during a phone interview begged the researcher to send materials. One returned questionnaire summarized many in saying, "SOS! WE NEED HELP!" By asking what is being used, expectations are being raised that materials will be developed to meet the needs.

Many teachers reported developing their own materials based on articles in such magazines as Fairplay, and Seaways. Many had created a syllabus for each year of teaching. One teacher said that he had created his own materials because it made him feel safe. Another said she did so because she had not been able to find materials that met her needs. In about half of the situations, the teacher prepared a book or collection that has been locally published or produced at the school. Some reported that the need to do this forced them to be current and spend time reading and preparing.

Table 10.6 Materials Used

Materials used	All	Europe	Asia	SA*	Other*
Maritime English text books	79.3%	81.3%	85.0%	70.0%	66.7%
Workbooks	53.7%	56.3%	21.1%	100.0%	71.4%
Maritime articles/IMO documents	43.7%	60.4%	10.5%	25.0%	50.0%
Grammar text books	39.8%	34.8%	30.0%	60.0%	71.4%
CD-ROM instructional materials	7.8%	10.7%	0.0%	20.0%	0.0%

*Not enough country representation to be able to be considered accurate.

Data above shows that a maritime English text is used in 79% of the classes although observation revealed that this was frequently done with photocopies of pages or shared text books owned by the school. Maritime articles are reported as being used in 43% of the classes. A grammar text is being use 40% of the time.

Available Teaching Aids

Overall, teachers responded as follows:

Table 10.7 Types of Teaching Aids

Type of Teaching Aids	All	Europe	Asia	SA*	Other*
Video	92.5%	96.8%	72.7%	100.0%	100.0%
Tape recorders	90.6%	96.8%	81.8%	100.0%	60.0%
Overhead projectors	90.4%	90.0%	100.0%	66.7%	100.0%
Slide projector	84.0%	82.8%	90.0%	83.3%	80.0%
GMDSS equipment and/ or simulator	69.6%	76.0%	70.0%	33.3%	80.0%
Computer lab	66.0%	69.2%	50.0%	50.0%	100.0%
Self-instruction facility	62.8%	75.)%	44.4%	83.3%	0.0%
Internet communications	57.8%	61.5%	40.0%	83.3%	40.0%
Language lab	52.8%	54.8%	63.6%	16.7%	60.0%
Computers for classroom use	43.5%	48.0%	50.0%	16.7%	40.0%
CD-Rom	39.1%	44.0%	40.0%	33.3%	20.0%

*Not enough country representation to be able to be considered accurate.

Most schools had the facilities to use audio and video tapes although rooms were not usually equipped with these and the students had to move to the room with the equipment, or it was brought to the classroom. Even some of the larger school had only one video machine available to the English teacher and teachers requested it in advance.

Many schools had language laboratorys but they were fifteen or so years old and many of the machines did not work. Some teachers wanted the language lab maintained and re-equipped; others wanted it replaced by a computer lab. Many knew that they had the tapes and materials for the language lab, but had nothing for the computer lab. In one school an up-to-date computer lab existed but the English department was not allowed to use it. In most locations, computer and language labs were not available to student outside of class hours even though many students reported that they would like to use a lab for continued self study.

Some teachers reported that they were seeking materials for interactive computer lessons so that students could continue their learning in spite of reduced hours for language teaching—in some cases down to one hour a week. The internet was available to different degrees. In many schools it was available on one computer or to one person at the school. Few schools had it available to students as well as teachers. It was a limited teaching tool because of limited general availability, but it can be expected to become more commonly available in the future.

Teaching Methods

Observation was made of roughly nineteen teaching situations. In one the students were in the language lab practicing sending a medical evacuation message. Prior to practicing the medical vocabulary was discussed and pronunciation was practiced. In another class the students watched a British video with a man getting up and getting ready to go to the office. They then did exercises from the workbook with the teacher. Another teacher had given students copies of an article discussing the maritime industry in their country. They discussed the vocabulary and meaning. All students were given a chance to talk. In another class students were given a page from an idiom book and were discussing it with great humor. The teacher comment on the need to vary activities in order to keep the students interested. Most interaction involved was with the teacher and not between students. Level, of course, made a difference in how English was being taught as did the goal of general English learning or maritime specific English learning.

Table 10.8 Teaching Methods

Methods	Total	Europe	Asia	SA*	Other*
Blackboard/whiteboard	86.5%	89.6%	85.0%	66.7%	100.0%
Teacher centered lectures	62.2%	68.8%	76.2%	16.7%	55.6%
Translation	55.2%	64.6%	36.8%	50.0%	50.0%
Student work groups	54.3%	51.0%	45.0%	100.0%	33.3%
Language lab	42.2%	51.4%	22.2%	83.3%	0.0%
Role playing or equivalent	38.6%	36.7%	10.0%	83.3%	57.1%
Individual learning	36.5%	37.5%	36.8%	25.0%	50.0%
Teacher/student meetings	31.7%	14.9%	55.6%	50.0%	57.1%
Visual demonstrations	25.9%	21.3%	10.5%	66.7%	28.6%
Simulation(s)	19.1%	23.1%	0.0%	37.5%	14.3%
Computers for word processing	13.3%	12.1%	13.3%	0.0%	33.3%
Peer tutoring	11.6%	5.4%	11.8%	25.0%	28.6%
Computers for language activities	7.0%	0.0%	14.3%	0.0%	33.3%

*Not enough country representation to be able to be considered accurate.

Teachers commented that they knew the students needed more practice, but there was not enough time allowed for this. One teacher gave the students topics, such as the handling of dangerous goods, and the students had to research the topic and give talks in class. They learned from the experience and the teacher learned the subject.

Exit Level Assessment

Most educators are aware, that if the IMO or shipping companies determine a test level for employment at sea, institutions will teach to that level. Concern existed that some companies were looking for Cambridge First Proficiency and they questioned why this should be the measure. Most said that the Marlins English Language Test from the International Shipping Federation was too expensive for their school to use which rather defeated its objectives. Following are methods of identifying exit level ability.

Exit level means of assessment for determining English language ability

- Ability to communicate in distress situation is demonstrated
- Basic academic standard & experience
- Cambridge 1st Certificate or Proficiency
- Certified by university
- Meets the requirements of the State Inspector of Shipping
- State run College English Test (CET)
- Continuous assessment is done
- Credits required are received
- Diploma exam
- English teachers' evaluations
- Seamen's English Post-Proficiency Test (SEPT)
- 70 % ECL
- Levels BFEM
- Banding
- National Exam O level
- National Certification achieved
- Observed ability to express
- Pass 50 %
- Spoken English ability demonstrated
- Test arranged and marked by school
- Theoretical and practical tests
- Written exam
- 80% on a general maritime English Examination
- Ability to use IMO vocabulary and seaspeak
- National English test including one or more of:
    - general English
    - listening
    - speaking
    - reading comprehension
    - writing
    - grammar
    - vocabulary
- Locally made test including one or more of:
    - general English
    - listening
    - speaking
    - reading comprehension
    - writing
    - grammar
    - vocabulary

Chapter 11

Alternative Methods of Delivery for Language Teaching

Technologies that could have an impact on the Maritime English curriculum are investigated in this section of the report. More specifically, new technologies are identified that could be appropriate and beneficial to the English language teacher in the maritime school preparing mariners for the multilingual/multicultural working environment they will be entering.

For the purposes of this report, *new technologies* refers primarily to recently introduced technologies which are still undergoing rapid development such as personal computers, the World Wide Web, and CD-ROMs. *Old technologies* refers to traditional teaching tools such as language laboratories based on audio tapes, commercial audio tapes, audio tape recorders used in teaching, video tapes and video recorders, language masters, record players and records, radio and television. The distinction between old and new does not have to do with the date of invention, but rather with when it has been available on an affordable basis for wide scale use by teachers and students.

This topic is extremely wide and therefore, the focus has been narrowed to what is most applicable and potentially useful to Maritime English teachers. A reality of research into this subject is that new materials using new technologies come onto the market daily and existing materials become quickly out of date. Traditional research methods are inappropriate for such a dynamic field, and the subject is too large for any one person to personally explore all the possibilities. Following are the prime methodologies used to obtain information for this report:

1) Maritime educators and teachers were asked via questionnaires sent world-wide to identify technologies they use and have available to them;
2) Maritime educators and teachers were asked via questionnaires sent world-wide to discuss their use of technological aids;

3) Interviews were held with maritime educators and English teachers and observations of teaching situations were carried out;
4) Selected conferences were attended with the intent of gathering information for this report;
5) Magazines and journals for 1997 and 1998 were reviewed for information such as: the *British Journal of Educational Technology;* the *Calico Journal: Devoted to Research and Discussion on Technology and Language Learning, Computer Assisted Language Instruction Consortium; TESOL Quarterly, Teachers of English to Speakers of Other Languages;* and *The Chronicle of Higher Education, Information Technology.*
6) Extensive searches were conducted on the Internet using the World Wide Web and internet sites; and
7) Trial uses were made of selected software and websites, such as: enrolling in courses, exploring chat rooms, experimenting with translation sites, and learning website "construction."

The Current Situation

Early MARCOM research found that virtually all maritime institutions are in the process of change. Many have been considering ways in which technology might assist them. This research identified isolation; out-of-date or insufficient teaching materials; limited time; large classes; classes of mixed ages, level, experience, educational focus and English ability; insufficient time and materials to teach the new Standard Marine Communication Phrases (SMCP); and lack of a standardized curriculum as some of the problems facing the teacher of English in the maritime school.

When Maritime English teachers were asked in early 1997 to "please comment on your use of technological aids for language teaching" most had little to say or discussed occasionally using audio or videotapes. Some used an English language laboratory with audiotapes, but usually commented that it was out of date and not working properly.

In one section of the questionnaire, Maritime English teachers around the world were asked to identify any CD-ROM materials and computer programs in use. The vast majority of the respondents representing 72 schools in 59 countries responded with "None" although they did fill out subsequent sections identifying Maritime English texts, workbooks, video and audiotapes and others. In summary, they reported:

Table 11.1

In use by Maritime English teachers	***% reported using***
Computers for word processing	13.3%
Computers for language activities	7%
CD-ROM instructional materials	7.8%
Language Laboratories	42.2%
Black/white board	86.5%

On a worldwide basis new technologies are being used in roughly 10% of the teaching situations. In must be noted however, that even old technologies, such as traditional language laboratories are being used in less than half the teaching situations. The blackboard/whiteboard remains the most used teaching aid.

Another question that was asked involved the availabilty of technology in maritime schools. Site visits clarified that in many locations connections to the Internet were available but the English teacher did not have training, time or real access. Data collected from 31 countries in late 1997 revealed the following:

Table 11.2

Available Teaching Technology	*Number available*	*Not available*	*% available*
Video	49	4	92.5%
Tape recorders	48	5	90.6%
Overhead projectors	47	5	90.4%
Slide projector	42	8	84.0%
GMDSS equipment and/ or simulator	32	14	69.6%
Computer lab	31	16	66.0%
Self-instruction facility	27	16	62.8%
Internet communications	27	20	57.4%
Language lab	28	25	52.8%
Computers for classroom use	20	26	43.5%
CD-ROM	18	28	39.1%

This data from a second questionnaire included a higher percentage of Asian countries than the first, which accounts for the higher use of new technologies. Another factor is the later date. The general technology literature discusses the different attitudes among administrators; those who purchase new technologies as a perceived means of lowering costs and increasing educational value and those who resist expensive purchases and do not understand the value to be added. Although data was not collected on this aspect, based on interviews and observations it seems that administrators of maritime schools are knowledgeable of and receptive to, new technologies. This may be in part due to the use the shipping industry makes of these and the use of simulators for teaching. However, most schools are functioning on very limited budgets and many are being forced to cut back expenses.

Finally, in reviewing the relevant information from earlier reports, the question arises as to whether or not the methodologies and materials in use by teachers are adaptable to the new technologies. Teachers reported the following concerning teaching methodologies and materials in use:

Table 11.3

Teaching Methodology	***% Indicating Use as Often***
Teacher Centered Lectures	62.2%
Translation	55.2%
Student Work Groups	54.3%
Individual Learning	36.5%
Visual Demonstration	25.9%
Simulation	19.1%
Materials Used	
Maritime English textbooks	79.3%
Workbooks	53.7%
Maritime Articles/IMO Documents	43.7%
Grammar Textbooks	39.8%

New Technologies Relevant to Language Instruction

A number of converging technological trends are rapidly raising the status of computer assisted language instruction, without real economic practicality, to a truly useful and cost effective means of aiding language instruction. Although many of the technologies involved in these trends have existed for several years or longer, rapid improvements on a number of fronts are combining on an additive basis to bring language instruction applications into their own. At the same time, declining costs are making at least some of the increased benefits available to almost every type of institution involved in Maritime English instruction. Further rapid development is expected to continue for the foreseeable future.

The following sections will briefly identify trends in the key contributing technologies and their relevance to meeting the identified needs of Maritime English language instructors.

Computers

Advances in computer technology, together with the economies of scale associated with ever increasing sales volumes, now allow new personal computers (PC's) to be sold for only a fraction of their previous price. The world market for PC's is now over 100 million units per year and continues to grow at over 30 percent annualy, providing the means and incentives for further production economies. This has had the greatest impact at the lower end of the market, where stand alone PC's capable of running the majority of new language instruction applications can now be purchased much more cheaply.

Networked Systems

Computer networks often employ the use of a relatively powerful server hooked up to almost any number of less powerful client computers. Client computers can be ordinary stand alone PC's or, where stand alone capability is not required, less complex networked PC's. Such computers download all their application software from the server(s), as needed thus requiring less storage and peripheral equipment. However, the major savings associated with networked computers are often related to the maintenance of software on the system. Since the linked computers share almost all of their software, software maintenance is confined almost exclusively to the system server. It should be noted, however, that the technical skills necessary to maintain a network are more extensive than for a stand alone PC. This could well translate into some additional personnel costs to support this type of system.

Specialized computer networks configured for learning applications are now in widespread use and have become a specialized market for computer manufacturers and resellers. These are frequently termed learning laboratories and are often dedicated to language teaching.

Peripheral Equipment

Great improvements have been made in the last few years in all the elements of a computer system which are most useful in presenting sound and visual materials with

sufficient speed to maintain the interest and interactive quality of training applications (i.e. multi media applications.)

The last couple of years have seen a proliferation of CD based training materials. This has been driven by the development of fast transfer CD-ROM drives and the inclusion of these drives in most new PC's manufactured since 1997. The cost of such drives has continued to fall making them easily includable as standard equipment on newer PC's. At the same time the cost of producing CD's has dropped dramatically allowing CD's to replace floppy disks in almost all applications for read only media.

The rapid access characteristics of the latest CD-ROM technologies are sufficient to permit very effective interactive type applications to be utilized without excessive waiting times for data transfer, the primary difficulty with older versions of this technology.

Software Developments

While software developers have long been aware that some excellent applications could be developed for teaching languages, they have been constrained until recently by the lack of suitable computer processing power and limited multi-media infrastructure. This has changed rapidly in the last few years and today many very viable training applications are coming onto the market. Those packages are constantly being updated to offer new features and take best advantage of the constant improvements to available hardware. Recent advances in software application capabilities that are most relevant to Maritime English instruction are covered in the following sections.

Audio Techniques

Applications now have the capability of drawing on a virtually unlimited selection of audio samples and presenting them to the user on demand. These can be actual recorded samples of speech or other sound effect or they can be synthesized sounds

generated by the computer. There are also intermediate approaches in which the computer assembles small samples of recorded sound into an extended presentation.

While speech synthesis is now starting to show up in many commercial applications, it is probably not yet suitable for language training purposes. Much better sound quality and precision is available from recorded material and recent improvements in CD technology.

For Maritime English instruction, standard phrases could be recorded by a variety of native English speakers as well as by speakers for whom English is a second language. Exercises could be designed to draw from any of these sources for drills or dialogs or other types of lessons. In many cases it might be more beneficial (and realistic) to hear the standard phrases as spoken by non-native English speakers. Similarly, translations of the phrases into other languages could be easily provided as an aid that could be brought into play at any time during any application.

Streaming Audio

In conjunction with the Internet (see below), even low end PC's now have the capacity to handle "streaming audio" which is very much like tuning into a radio broadcast on the computer. Streaming audio applications have the additional advantage that, except for live presentations, programs may be started at any time and repeated or paused just as can be done with a tape recorder or CD player. Virtually any type of audio presentation can be handled. Although this application requires a moderately high bandwidth connection to the Internet (14 or 28 K) this level of access is standard in North America and much of Europe and is rapidly becoming available throughout the world. This technology is developing very quickly and should prove to be of great importance as an aid in teaching and learning Maritime English.

Speech Technology

While speech recognition has been the subject of serious research efforts for twenty years or more, it has only recently become practical for use on PC's. Speech

technology is now being recognised as a major advance in the utility of PC's and the next major advance in computer applications. Today, the first low-cost usable speech recognition applications are starting to find market acceptance for dictation and transcription and hands free use of computers in environments where such features are an advantage. Very rapid progress is expected over the next couple of years as evidenced by the high volume of research effort being expended by major software and hardware developers.

While many aspects of speech technology may not have direct application for Maritime English instruction, the new features made possible by this technology will raise the interactive capabilities of instructional applications to a new level. Speech technology will especially benefit the teaching of pronunciation, which has been largely neglected in most instructional programs even though it is often a major barrier to effective communication.

Visual technology

Visual images require relatively large amounts of memory and processing power to incorporate effectively into a PC based application. While still a major consideration in the design of applications, more and more graphic and visual possibilities become feasible daily. Fortunately for teachers of Maritime English, effective training applications do not have to include high-resolution animated pictorial sequences to accomplish their primary purpose. Very effective graphs, charts, drawings, diagrams, and small photographs can be incorporated into applications without exceeding processing power requirements that would rule out the use of today's low end PC's.

Many application development packages now exist that can create quite sophisticated training modules that fully integrate visual and audio capabilities. Training materials created with this authoring software would incur no further costs and could be easily made available to maritime institutions throughout the world.

Other Software Developments

Several other types of applications have become available recently that could be of considerable use in the teaching of Maritime English. These include a variety of translation programs and computerised dictionaries that could be brought into play in certain types of training situations. Many of these resources are free and available on the World Wide Web (see following section) or can be acquired for installation on a network or on individual computers.

The Internet

Few, if any, developments have added as much to the computer's value for educational purposes as the Internet. The Internet, and the World Wide Web (WWW) in particular, provides people all over the world with access to the greatest store of information (used in its broadest sense) ever accumulated. The information is in computers everywhere, but it is all accessible from a single computer terminal which can be located anywhere that a telephone link can be established. Since this includes satellite links, developing countries are now in the position of being able to "leap frog" inadequate telephone infrastructures and participate in this technology with relatively small investments in suitable communications equipment.

The Internet is much more than a repository of information. Its even greater utility lies in its ability to let us exchange information, almost instantly, and at relatively little cost, with people all over the world, in ways that were never before possible. With the Internet, the resources on one computer can become the resources on another computer, often in a matter of seconds.

The huge cost benefits associated with the Internet relative to its fairly minimal cost are so widely recognised that virtually every government and every higher level educational institution in every country are doing whatever they can to facilitate its availability. Since maritime schools are situated in roughly 100 countries world-wide, the range of use is from none at all to full availability for every teacher and student. The trend, however, is that access is increasing rapidly and we believe that within a

few years the large majority of higher level maritime schools will be equipped with Internet access. Even at the present level of access, the Internet can play a key role in the standardisation of subject matter and the development of Maritime English teaching materials which can then be made available to other teachers on CD-ROMs or by more traditional means.

Long Distance Learning

The Internet's capacity for presenting and transferring many forms of information on an almost instantaneous basis, makes it the long awaited vehicle for many forms of long distance education. New courses in everything from computer programming to language instruction are appearing on the WWW daily. Through the Internet, classes can be made up of students situated virtually anywhere in the world. This can be a tremendous advantage in terms of being able to quickly fill classes that are of a specialised nature.

Long distance learning techniques could allow Maritime English and related subjects to be taught to mariners even while they were at sea. Internet connections are becoming increasingly available through satellite links. This could be especially advantageous since this might be when prospective students have the most time available for courses of this type. Many Maritime English teachers express concern at the lost learning time when the students are taking part in sea experience. One maritime school is designing a distance education program that will be an integral part of the English instruction with lessons continuing while the students are at sea. This could prove to be very successful because the students are motivated, already have a relationship with their teacher and do not have a break in their education.

Specific Maritime Education Uses

Standard Marine Communication Phrases (SMCP)

One example of a problem that could be solved with new technologies concerns the SMCP adopted by the International Maritime Organization (IMO) in 1997 for trial and comment. This 148-page document replaces the much shorter Standard Marine Navigational Vocabulary (SMNV). This difference is due in part to repetition of forms, but many are still concerned about the length. Most Maritime English teachers have reported that their methodology for teaching SMNV has been to give the SMNV pamphlet to the students and then test them on the content and model use in class. Teachers now report being overwhelmed by the length of the SMCP and to not have the time to design new lessons and materials to teach these phrases. One side aspect of this research has been that in the process of asking teachers about how they are teaching the new SMCP, they have respond by asking for materials and help.

The possibility of using technology to support the teaching of the SMCP has not been ignored. In 1995, 1996 and 1997 the IMO-Working Group on SMCP chaired by Professor Peter Trenkner of Institut für Sicherheitechnik/Verkehressicherheit e.V (ISV) in Rostock suggested the production of a CD/Cassette to accompany the printed phrases. According to Professor Trenkner, "this was confirmed and reconfirmed by the IMO-NAV Sub Com in 1995 and 1996. Fred Weeks, member of the Working Group, even undertook the first steps in this direction and had preliminary talks with a private company in the UK as early as 1995." However, to present, nothing has been produced and may not be until the phrases are finalized in 1999, long after teachers have been attempting to teach them.

Professor Trenkner has prepared a **preliminary IMO-SMCP Audio Course for Upgrading VTS Operators** based on IMO SMCP PART III/6, VTS Standard Phrases that is bilingual, German and English. He reports that a private company, in the Centre of Technology in Warnemünde has prepared a CD-ROM with the phrases of IMO SMCP PART IV/Chapter D, Passenger Care and that it is available on German DFO-Ferries between Sweden, Denmark and Germany.

The World Maritime University has explored the possibility of designing and preparing a CD-ROM. Because the script, in essence, has already been written and the new technologies are readily available, the project only needs financial support and commitment of knowledgeable individuals.

A lecturer in France at the Ecole Nationale de la Marine Merchande de Nantes, has designed lessons in the SMCP for use by his students in his multi-media center. Students were observed making selections related to correct uses of the SMCP as well as practicing listening and speaking skills.

Teaching Materials Currently Available

Only one company is marketing a CD-ROM specifically for the teaching of Maritime English but a number are developing multimedia marine education projects and these are adaptable for Maritime English use. Many teachers currently report that they are using videos aimed at general marine use for the teaching of English. These could be reviewed and specific lessons and applications recommended. Some companies doing this work are listed in Workpackage 5.2.6/3 of the MARCOM project.

Simulators

Many maritime institutions currently use simulators as a routine part of their instruction. Site observations revealed that with the exception of training for radio operators, many bridge simulation exercises in countries without English as a native language are not done in English. The possibility certainly exists for a team approach in which simulators are used for English instruction in addition to practical experience. This would be particularly useful in allowing students to practice English in a simulated stress situation.

Websites

There are numerous websites from which teacher can obtain up to date information for teaching. Following are some of the more important sources for more information on helpful sites:

- IMO homepage <http://www.imo.org/>, updated information in the following categories: IMO Conventions, Focus on IMO, IMO News, Work Maritime Days, Program of Meetings, IMO Publications Catalogue.
- Lloyd's List is available on the Internet at <http://www.llplimited.com> and well as available on disk.
- In April 1997 Fairplay produced the "Fairplay Internet Guide" with over 900 web address applicable to the maritime profession such as academic institutions, classification societies, marine equipment, etc.
- "Webwise. A Shipping Guide to the Internet" is an extensive directory to maritime websites in Containerisation International April 1997.
- Ports such as the French port of Le Havre have websites, <http://www.havre-port.fr/> designed to provide customers with the latest information available. The Port of Singapore website contains information on port services (container handling facilities, marine services, warehousing, pert terminals), data bases, international business, recent articles from Portview, as well as information on upcoming events at Singapore's World Trade Center.
- The site of the International Transport Workers Federation (ITF) <info@itf.org.uk>. <http://www.imo.org> has important information.
- Many maritime schools have websites and these are increasing every week.

Reference

Teachers can assign sites that will assist students in using words correctly. Among others is one that could be expanded to include additional maritime vocabulary is <www.onelook.com>. It has 285 dictionaries arranged by business, computer, medical, miscellaneous, religious, science, sports, technological etc.

Translation/Voice

Two sites have been identified as having potential for adding maritime phrases and vocabulary and more certainly exist. One is the Digital Equipment Translation Service site, <www. Bablefish.altavista.digital.com/cgi-bin/translate?>. This translates to and from English: French, German, Italian, Spanish and Portuguese.

Another site for the Bell lab text-to-speech synthesis system allows the user to choose different speakers (woman, man, child, coffee drinker, raspy, ridiculous, etc.) and then type the text and have it "spoken" by the voice selected. Theoretically, the words spoken could be the standard marine communication phrases said by different speakers of English or used by people learning pronunciation.<www.bell-labs.com/project/tts/voices.java.html>.

Language Testing

This is an active topic of discussion on the web and teachers might wish to join one of the discussions. Ones site with resources for language testing is <http://www.surrey.ac.uk/ELI/ltr.html>. Another is called W3 Foreign Languages Testing Database Project <http://138.236.40.190/langtest/index.html>. The intention is to make use of language instructors' resources to create a big language testing database on the Web.

Inclusion

More and more conferences and discussion groups are available on the web. A teacher who is unable to attend a particular conference can take part through active connections. Reports are frequently posted and discussion groups are often formed around specific topics. A video camcorder can be posted so that the webuser can see and hear actual talks as they are being delivered.

CD-ROM Materials Currently Available

Language Testing

The maritime community has not fully addressed the issue of how to test in a reliable and uniform way the language abilities of seafarers. STCW and IMO codes now

require that seafarers be able to communicate but the assessment of this is left to each country and shipping agency. The new technologies offer some possible answers.

One is the Marlins English Language Test being used currently primarily by shipping companies. This is CD-ROM based designed to test written and spoken English and takes roughly one hour to complete. It is comprised of computer based questions that according to the literature are "randomly selected from a broad database of language tasks drawn from real life seafaring situations." Maritime English teachers asked if they or their institution used this test to assess students usually commented that it was too expensive for them to order.

Language materials

There are now too many CD-ROM instructional English programs on the market to be easily reviewed as to possible use in the Maritime English classroom. Preliminary research indicates that differences are great, as are the reactions of students. Two English learners, one beginning and one advanced tried out two C-D ROM instructional English programs at our request. One had sound, speech recognition and record playback options that allows comparison to a native speaker aimed at beginning and intermediate students. The other contained over 90 lessons designed to teach Fundamental grammar to intermediate and advanced intermediate students.

The students felt they learned from the first one and had the opportunity to practice useful English words and phrases. Despite some minor problems this system could easily have a maritime focus and it can be expected that the speech recognition portion will improve. The beginner student was unable to use the second program that was tried. It was aimed higher than her level. The advanced student found it helpful but not interesting and he would have to feel very motivated and interested in grammar to use it.

Multimedia Centers

A number of terms are in use to refer to a center that brings together many technologies to assist the students with their language learning. – Multimedia Centre, Language Laboratory, Media Center, Multimodal Language Learning Centre. For our

purposes the word *multimedia* refers to the combination of text, audio, and pictures on a single "platform" which combines the benefits of "conventional" Computer-Assisted Language Learning (text reconstruction exercises, test, games etc) with those of video and other technologically-based devices. The phrase *learning laboratory* is preferred since an association now exists under this name "dedicated to promoting effective uses of media centers for language teaching, learning and research" (International Association of Learning Laboratories)

In setting up a multimedia laboratory the first question to ask is; *"what do you wish to do?"* Already at this stage availability of suitable space, pedagogical goals, technical resources, staff resources, and budget all come into play. However, it must be clear in the planning process that independent learning does not replace the teacher, rather it enhances the learning process by allowing the student to access data and perform activities "outside class" in a way that has never been possible before.

The language learning laboratory should be located in connection with the library resource. If it is assumed that expensive hardware is to be installed then security is a major consideration - located within a library complex security will be heightened. In addition the types of software envisaged will parallel with materials held in the library.

A well-planned learning laboratory will make a multitude of language learning resources available to students (and staff) to use on their own at times convenient to them. It is envisaged that future technological innovations will be progressively added to widen the learning laboratory's scope.

A further record-keeping system is desirable to monitor the whereabouts and the frequency of use of materials so that accurate analyses may be when considering future developments of the laboratory.

Hardware Requirements

It is not the intention here to presume knowledge of computer hardware but to present to those who are knowledgeable, the requirements perceived as necessary from a linguistic and pedagogical viewpoint.

Most languages consist of three components: words (vocabulary/lexical items) and their pronunciation structure (grammar/syntax) and culture. To be able to communicate it is necessary to master at least two of the four language skills: listening, speaking, reading and writing. At a maritime university all four skills are of more or less equal importance although it could be argued that writing outweighs the other three since most forms of assessment are carried out via the writing mode.

The components and the skills are unavoidably interlinked both horizontally and vertically:

SKILLS	components		
LISTENING	vocabulary	(grammar)	
e.g. social, lectures			
SPEAKING	vocabulary	grammar	pronunciation
e.g. social, seminars, presentations			
READING	vocabulary	(grammar)	
e.g. handouts, books, journals			
WRITING	vocabulary	grammar	
e.g. assignments, reports, examinations			

The impact of culture on language varies tremendously and may be an essential component in language acquisition in certain situations. In the multinational context of the maritime profession the cultural aspects of the English language**s** are appropriate when it comes to interaction among crew.

Bearing this in mind an interactive computer laboratory will thus allow the student to:

- expand and deepen his/her knowledge of both general and specific vocabulary; e.g., the *Standard Maritime Communication Phrases*
- heighten his/her awareness of accurate grammar usage
- become aware of and practice aspects of the those language skills appropriate in the short-term for study and in the long-term for individual career goals
- become aware of and practice aspects of the four skills useful in the outside world both during the period of study and beyond
- access developed materials which incorporate both *controlled* and/or *real* English.

In a truly interactive set-up the computer will not only respond to the student by indicating right or wrong but explain and respond to the nuances of the target language - in this case English. *The nature of language interaction when two people are communicating must be kept firmly in sight to maintain credibility (and interest).* In this respect the computer may often be regarded as the second party in a dialogue with the student. Such sophistication has yet to be catered for in both the hardware and software.

As for the basic tasks that the hardware in a proposed lab should be able to cope with, the following may be envisaged:

- independent study accessible during library opening hours and beyond if possible
- student to student communication oral and written
- student to student**s** communication oral and written
- concealed monitoring of students by the lecturer (console)
- lecturer to student communication oral and written
- lecturer to student**s** communication oral and written

the viewing of pictures both still and moving (video) - in this respect it is envisaged that selected lectures may be recorded (or indeed broadcast live) for language learning adaptation (or replayed evenings or weekends for review purposes) - further that automatic transcription from voice to text (screen) be made available

Decisions on the purchase of equipment require i.a. the following considerations:

- continuing availability of suitable materials or software
- maintenance of equipment
- durability and robustness
- potential for expansion or modification
- adaptability to distance education; i.e., when students are at sea

Teachers will often need to present the advantages and disadvantages of using new technologies to their superiors and work with them on these matters. Briefly, some advantages are:

- Students can have more control over their own learning. They can manipulate text and pictures.
- With e-mail students can interact on an equal level. Students working in a second language can take time to think and compose before entering a chat room discussion or writing e-mail.
- Computers have unlimited patience and are nonjudgmental. Students can repeat as often as necessary and proceed at their own speed, particularly helpful with adult learners. Reinforcement is immediate and personal.

Some disadvantages are:

- They can be a distraction.
- They can be time consuming.
- The time taken on playing with the design option can directly reduce the time for learning.
- Expertise is required for purchase and maintenance.
- They are expensive.

Software

Today three currently distinct items dominate the software scene in the language learning context; word processing, Internet and general/specialist programs. By far the most common of these has been, and to a certain extent still is, word processing. This is rapidly being overtaken by the internet, originally for reading purposes, now for creative usage through homepage production, chat group scripted dialogue and, in the future, for a plethora of anticipated usage integrating audio and video. Software

packages for general language learning usage appear to be playing an increasingly minor role but there is still a niche role for the specialist program which may be employed to cover those areas not catered for elsewhere. In this respect, specialist Maritime English materials are slowly coming on to the market. General programs such as ENCARTA can also be employed effectively in the language learning situation.

Having first established the content of the software, the teacher will need to evaluate it in order to judge if, and how, it could be used in a teaching programme. A simple framework consisting of five basic questions can be used:

- **What** are the aims of the software?
- **Who** is the intended audience?
- **What** is the content?
- **How** is the instruction delivered?
- **How** is the software designed to be used?

Maritime education will be greatly benefited if groups of Maritime English teachers systematically try out and recommend CD-ROM. Selected publishers could be contacted to pursue the production of CD-ROMs on a commercial basis that would focus on general and specific English needed by mariners. Students would benefit if a hand held translator aimed for the maritime industry such as those designed for tourists were developed. Above all, Maritime English teachers must have available to them training in the potential uses of new technologies.

Recommendations

Short Term

This survey of Maritime English teaching conditions revealed that most instructors spent much of their available time trying to create or obtain usable teaching materials for their classes. Since almost nothing exists in the way of standardised texts or other resources, most instructors were on their own with minimal budgets for either acquisition or development of materials. As development of training materials is

approached independently around the world, graduates of maritime institutions will have had widely differing experiences in their exposure to Maritime English training.

This broad diversity in training methods and materials together with an almost complete absence of training in pronunciation, leaves many mariners poorly equipped to communicate with each other even though they have all theoretically had exposure to Maritime English. Providing teachers with good quality, standardised training materials would be a major step in meeting the overall objectives.

On a short term basis, efforts should be directed to educating the teachers in how to participate in a co-ordinated teaching effort and how they can best use existing technology to obtain standardised resources and use them effectively in the classroom. Virtually all teachers surveyed recognised the inefficiencies inherent in their own teaching situations and would welcome the opportunity to co-ordinate efforts with their colleagues and with some sort of centralised resource facility.

It is the opinion of this report that the most immediate need that could be met through the use of technology is the establishment of improved communication between Maritime English instructors. By far the best means of doing this is through the Internet. Even if a sizeable minority of instructors can become involved in exchanging information and developing resources through the Internet, the benefits in terms of improved materials and sense of community will be significant. In addition, many resources will be identified that can be made available to even those instructors without current access to the Internet. Also, all who participate will be gaining skills that will aid them in the further use of technology as more resources become available.

Practically, just access to a PC with an Internet connection for a short period each day could be sufficient for most purposes. This should already be available to most maritime academies in European countries and is, or soon will be, within the resources of many academies in other countries as well.

However, a key part in getting teachers to use the web is having useful content available for them to take advantage of. For this reason it is recommend that some entity within the Maritime English community take the lead in establishing a web site that would be an authoritative source of information concerning Maritime English instruction. Amongst other things this would function as a central repository of teaching resources where teachers could download materials for use in their classrooms. Information would also be available on such things as various hardware and software products that could be valuable for instructional purposes as well as basic educational resources concerning the use of technology in the classroom and learning lab.

A content plan for a Maritime English centered website might be as follows:

1. An introductory section explaining the purpose of the website and discussing plans for its future development.
2. A Calendar of Events and bulletin board scheduling workshops, conferences, and announcements of use to the user community.
3. Technology Resources - Materials relating to hardware and software considered useful for Maritime English instruction. Including educational materials on relevant technology and discussion of potential development paths for putting technology in place in a school environment.
4. Teaching resources and guides for the Maritime English community.
   A. Materials for teaching the standard phrases
      - Actual phrases with translation in various languages
      - Pronunciation of phrases by English speakers
      - Pronunciation of phrases by speakers with English as second language
      - Situational dialogues using standard phrases
      - Student Internet projects.
   B. Bibliography of texts and other teaching materials with comments provided by user community
   C. Testing and assessment

D. Current papers, articles, extracts, reviews, etc. for reference and/or downloading

E. Teacher training

F. Training materials for reference and/or downloading:

- Programs for language drills etc.
- Graphics for use in programs or other applications
- Audio materials for programs and other applications
- Lesson Plans,syllabuses,suggested teaching methods
- Situational dialogues on maritime topics
- Current readings in English on subjects of interest to maritime students (graded by level of difficulty)

1. Directory of Maritime Institutions including Maritime English staff with contact information and comments on special research areas etc.
2. Guide to other useful sites on the Internet with description of the site contents and its relevance to Maritime English - with hyperlink to site.
3. A survey input screen where users would be encouraged to provide short answers to periodic questions on topics of interest to the community. Responses could be made available for review by all visitors to the site or only by those running the site as appropriate.
4. A general input screen for user suggestions and comments. All users would be encouraged to help expand and upgrade the site content by contributing, suggesting new links to other sites, calendaring events, and commenting upon any inaccuracies in the information presented.

It is also recommended that efforts be made to initiate the development of some basic Maritime English training software that could be used both in a supervised classroom situation and by students on their own. Given the number of quite usable general English training applications, it should not be difficult to modify some of these to incorporate Maritime English phrases and subject materials.

The process of acquiring suitable computer equipment should undergo a cost benefit analysis. If centralised resources can be brought to bear on the question of cost, it would be very useful to make available two or three “standard” suggested

configurations that would provide good value for a given investment. The greater the number of institutions that use similar equipment configurations, the more benefits can be derived by the sharing of information on common applications and successful teaching practices.

Finally, unless maritime educators are convinced of the advantages and disadvantages of using the new technologies as specified above then the potential gains will not be realized. To realistically hope for even a moderately co-ordinated use of technology in Maritime English departments within five years, the education and planning process must start in the immediate future.

Long Term

In five years or more, computer based learning systems will invariably be integrated into most educational systems world-wide, not least in the instruction of Maritime English. The resources available on the Internet will be among the most valuable, and certainly the most easily accessible, of any the learner/instructor has available.

The Maritime English community should view the Internet as the ideal and cheap tool to help standardise Maritime English instruction at a uniformly high level that will be available to mariners not only during their initial schooling, but also wherever they go in the world. The development of long distance learning resources to be distributed over the Internet is undoubtedly the most efficient way to bring uniform quality educational materials to every part of the world.

At the same time, it is the best way to upgrade the quality of overall instruction. A major part of the Internet's value is as a means of educating the instructors. Part of this education will be to make sure they understand that the role of technology is to make them more effective, not to replace them. The isolation that is currently felt by many Maritime English teachers can be markedly reduced. Instructional successes in one part of the world can immediately be shared with colleagues elsewhere. Teachers with a problem will be able to seek advice in a global staff room, either individually, or as a group.

It is the belief of this report that the Internet is the key to the most effective use of technology for the instruction of Maritime English and that every effort should be made to make sure that its benefits are realised in the years to come.

Chapter 12

The Teaching of Maritime English as a Type of English for Specific Purposes (ESP)

The Origins of ESP

The end of the Second World War in 1945 heralded an age of enormous and unprecedented expansion in scientific, technical and economic activity on an international scale. This expansion created a world unified and dominated by two forces –technology and commerce—which in their relentless progress soon generated a demand for an international language. For various reasons, most notably the economic power of the United States in the post-war world, this role fell to English.

The effect was to create a whole new mass of people wanting to learn English, not for the pleasure or prestige of knowing the language, but because English was the key to the international currencies of technology and commerce. As English became the accepted international language of technology and commerce, it created a new generation of learners who knew specifically why they were learning a language. English suddenly became big business and commercial pressures began to exert influence. Time and money constraints created a need for cost-effective courses with clearly defined goals.

The demand was growing for English courses tailored to specific needs, influential new ideas began to emerge in the study of language. The language we speak and write varies considerably, and in a number of different ways, from one context to another. In English language teaching this gave rise to the view that there are important differences between say, the English of commerce and that of engineering. These ideas married up naturally with the development of English courses for specific groups of learners. The idea was simple: if language varies from one situation of use to another, it should be possible to determine the features of specific situations and then make these features the basis of the learners' course. It was the late1960s and early 1970s which saw the greatest expansion of research in the nature of particular varieties of English, most of the work at this time was in the area of English for science and technology (EST) and for a time ESP and EST were regarded as almost synonymous.

New developments in educational psychology also contributed to the rise of ESP, by emphasising the central importance of the learners and their attitudes to learning (Rodgers,1969). Learners were seen to have different needs and interests, which would have an important influence on their motivation to learn and therefore on the effectiveness of their learning. This lent support to the development of courses in which ”relevance” to the learners’ needs and interests was paramount. The standard way of achieving this was to take texts from the learners specialist area. The assumption underlying this approach was that the clear relevance of the English course to their needs would improve the learners'’ motivation and thereby make learning better and faster.

The growth of ESP, then was brought about by a combination of three important factors: The expansion of demand for English to suit particular needs together with developments in the fields of linguistics and educational psychology. All three factors seemed to point towards the need for increased specialization in language learning.

The Development of ESP

First of all ESP is not a monolithic universal phenomenon. ESP has developed at different speeds in different countries. It should be pointed out that the area known as EST (English for Science and Technology) has been particularly important in the development of ESP. To illustrate the development of ESP through the years, it will be given a brief account of the five phases of this development.

The Concept of a Special Language: Register Analysis

This stage took place mainly in the 1960s and early 1970s and was associated in particular with the work of Peter Strevens (Halliday, McIntosh and Strevens,1964), Ewer and Latorre (1969), and John Swales (1971). Operating the basic principle that English of, say, Engineering constituted a specific register different from that of Biology or of General English, the aim of the analysis was to identify the grammatical and lexical features of these registers. Teaching materials then took these linguistic features as their syllabus. The aim was to produce a syllabus which gave high priority to the language forms students would meet in their Science studies and in turn would give low priority to forms they would not meet.

Beyond the Sentence: Rethorical or Discourse Analysis

Whereas in the first stage of its development, ESP had focussed on language at the sentence level, the second phase of development shifted attention to the level above the sentence, as ESP became closely involved with the emerging field of discourse or rethorical analysis. The leading lights in this movement were Henry Widdowson in Britain and the so-called Washington School of Larry Selinker, Louis Trimble, John Lackstrom and Mary Todd-Trimble in the United States.

The basic hypothesis of this stage is expressed by Allenand Widdowson (1974):

"We take the view that the difficulties which the students encounter arise not so much from a defective knowledge of the system of English, but from an unfamiliarity with English use, and that consequently their needs cannot be met by a course which simply provides further practice in the composition of sentences, but only by one which develops a knowledge of how sentences are used in the performance of different communicative acts."

Register analysis had focussed on sentence grammar, but now attention shifted to understanding how sentences were combined in discourse to produce meaning. The concern of research, therefore, was to identify the organisational patterns in texts and to specify the linguistic means by which these patterns are signalled. These patterns would then form the syllabus of the ESP course.

Target Situation Analysis

This stage did not really add anything new to the range of knowledge about ESP. What it aimed to do was to take the existing knowledge and set it on a more scientific basis, by establishing procedures for relating language analysis more closely to learners' reasons for learning. Given the purpose of an ESP course is to enable learners to function adequately in a target situation, that is, the situation in which the learners will use the language they are learning, then the ESP course design process should proceed by first identifying the target situation and then carrying out a rigorous analysis of the linguistic features of that situation. The identified features will form the syllabus of the ESP course. This process is usually known as *needs analysis*. However, we will take the term of "target situation analysis" from Chambers (1980), since it is a more accurate description of the process concerned.

Skills and Strategies

The fourth stage of ESP has seen an attempt to look below the surface and to consider not the language itself but the thinking processes that underlie language use. There is no dominant figure in this movement, although we might mention the work of Francoise Grellet (1981), Christine Nuttall (1982) and Charles Alderson and Sandy Urquhart (1984) as having made significant contributions to work on reading skills.

These projects were set up to cope with study situations where the medium of instruction is the mother tongue but students need to read a number of specialist texts which are available only in English.

The main idea behind the skills-centred approach is that underlying all language use there are common reasoning and interpreting processes, which, regardless of the surface forms, enable us to extract meaning from discourse. The focus should rather be on the underlying interpretative strategies, which enable the learner to cope with the surface forms, for example guessing the meaning of words from context, using visual layout to determine the type of text, exploiting cognates (i.e. words which are similar in the mother tongue and the target language). A focus on specific subject registers is unnecessary in this approach, because the underlying processes are not specific to any subject register.

In terms of materials this approach generally puts the emphasis on reading or listening strategies. The characteristic exercises get the learners to reflect on and analyse how meaning is produced in and retrieved from written or spoken discourse. Taking their cue from cognitive learning theories, the language learners are treated as thinking beings who can be asked to obseve and verbalise the interpretative processes they employ in language use.

A Learning Centred-Approach

All of the stages outlined so far have been fundamentally flawed, in that they are all based on descriptions of language *use*. Whether this description is of surface forms, as in the case of register analysis, or of underlying processes, as in the skills and strategies approach, the concern in each case is with describing what people *do* with language. But our concern in ESP is not with language *use* , although this will help to define the course objectives. Our concern is with language *learning*. We cannot simply assume that describing and exemplifying what people do with language will

enable someone to learn it. If that were so, we would need no more to than read a grammar book and a dictionary in order to learn a language. A truly valid approach to EST must be based on an understanding of the processes of language *learning.*

Needs Analysis

We have defined ESP as an approach to course design which starts with the question "Why do these learners need to learn?". Any course should be based on an analysis of learner need. This is one way in which ESP procedures can have a useful effect on General English and indicates once more the need for a common approach. The answers to the analysis will probably be different, but the questions that need to be asked are the same. Nevertheless, the tradition persists in General English that learner needs can´t be specified and as a result no attempt is usually made to discover learners' true needs. Thus if we had to state in practical terms the irreducible minimun of an ESP approach to course design, it would be needs analysis, since it is the awareness of a target situation—a definable need to communicate in English—that distinguishes the ESP learner from the learner of General English.

To understand needs analysis, we can make a basic distintion between *target needs* (i.e. what the learner needs to do in the target situation) and *learning needs* (i.e. what the learner needs to do in order to learn).

Target Needs

"Target needs" this term in pactice hides a number of important distinctions. It is more useful to look at the target situation in terms of *necessities*, *lacks* and *wants*.
We can call *necessities* the type of need determined by the demands of the target situation, that is, what the learner has to know in order to function effectivily in the target situation.

To identify *necessities* alone, however, is not enough, since the concern in ESP is with the needs of particular learners.You also need to know what the learner knows already, so that you can then decide which of the necessities the learner lacks. The target proficiency in other words, needs to be matched against the existing proficiency of the learners. The gap between the two can be referred to as the *learner's lacks* (Hutchinson, Waters and Breen 1979).

We have stressed above that it is an awareness of need that characterises the ESP situation. But awarenes is a matter of perception, and perception may vary according to one's standpoint. Learners may have a clear idea of "necessities" of the target situation: they will certainly have a view as to their "lacks". But it is quite possible that the learners' views will conflict with the perceptions of other interested parties: course designers, sponsors, teachers.

Methodology

First we will settle some basic principles of language learning, which will underpin a learning centred methodology.

1. Second language learning is a developmental process. Learners use their existing knowledge to make the new information comprehensible. Only in this way can learning take place. "Comprehension precedes learning" (Strevens, 1985). The learner's existing state of knowledge is, therefore, a vital element in the success or failure of learning, so, as teachers we will have to try to establish and exploit what the learners already know.

2. Language learning is an active process. It is not enough for learners just to have the necessary knowledge to make things meaningful, they must also use that knowledge. However, it is important to be clear what we meant by the term "active". We must make a distinction between two types of activity: *psycho-motor* activiy, that is, the observable movement of speech organs or limbs in accordance with signals from the brain and *language processing* activity, that is, the organisation of information into a meaningful network of knowledge, this kind of activity is internal and not observable.

3. Language learning is a decision-making process. In the traditional classroom the teacher made all the decisions. Indeed it was essential for the teacher to do so in order to avoid all possibilities of error. But the process of developing and using a network of knowledge relies upon a train of learner decisions: What knowledge is knew? How does it relate to the existing knowledge? What is the underlying pattern? Is there a rule of appropriacy here? Which bits of information are relevant? Which are unimportant? Learners must be decision makers (Allwright,1978a).

4. Language learning is not just a matter of linguistic knowledge. The most fundamental problem of second language learning is the mismatch between the learners'conceptual/cognitive capacities and the learners'linguistic level. In mother tongue learning they develop together. In the second language they are grossly out of focus: the second language learner is someone who is conceptually and cognitively mature, but is linguistically an infant. This is a particular problem in ESP.

5. Language learning is not the learners'first experience with language. Every second language learner is already communicatively competent in one language. They do not know the specific forms, words or possibly some of the concepts of the target

language, but they know what communication is and how it is used (Swan,1985a). They may not be able to verbalise this knowledge, but it is there, for without it they would not be able to operate in their own mother tongue. Learners'knowledge of communication should be actively exploited in second language learning, for example, by getting students to predict, before reading or listening (Widdowson,1978).

6. Learning is an emotional experience. Our concern should be to develop the positive emotions as opposed to the negative ones by, for example:

- Using pair and group work to build on existing social relationships;
- Giving students time to think and generally avoiding undue pressure.
- Putting less emphasis on the product (the right answer) and more on the process of getting the answer.
- Valuing attitude as much as aptitude and ability.
- Making interest, fun, variety primary considerations in materials and methodology, rather than just added extras.

7. Language learning is to a large extent incidental. You do not have to be working with language problems in order to learn language. You can learn language incidentally, while you are actually thinking about something else. The problems to be solved in a problem-solving approach do not have to be language problems (Prabhu,1983). The important point is that the problem should oblige the learners to use language and thereby to fix the language into the matrix of knowledge in their minds (Krashen,1981)

8. Language learning is not systematic. We can learn by systematising knowledge, but the process itself is not systematic. Laying out information in a systematic way will not guarantee learning. The learner must create an internal system. An external system may help, but that is all it can do.

Listening Comprehension

Methodological Guidelines

Here we have a model which is not designed to be followed slavishly but is intended to provide general methodological guidelines (Harmer 1988).

The model has five basic stages:

Lead-in:

Here the students and the teacher prepare themselves with the topic of the listening exercise to create expectations and arose the students'interest in the subject.

T directs comprehension task:

Here the teacher makes sure that the students know what they are going to do, answer questions, fill in a chart, complete a message pad, or re-tell what they heard?

SS listen for task:

The students then listen to a text to perform the task the teacher has set.

T directs feedback:

When the students have performed the task the teacher will help students to see if they have completed the task successfully and will find out how well they have done.

T directs text-related task:

The teacher may then organise some kind of follow-up task related to the text.

One of our tasks when teaching listening will be to train students to understand what is being said in the conversations, that is, to get them to disregard redundancy, hesitation,ungrammaticality and speakers changing their minds.

The major problem that teachers and students encounter when tackling listening material, however, is not speech phenomena but the actual way listening material is presented to the student. He may be asked to listen to his teacher for listening training, and this may be beneficial, but there is a limit to the activities the teacher can perform.

The difficulties inherent in the use of listening materials lead us to a number of conclusions about how such materials should be handled. Firstly, we should be sure in

almost all cases to give a clear lead-in to what the students are going to hear, more than ever expectations are important here. Secondly, wherever possible there should be some kind of visual backup to the listening material that will help students to come to grips with the text. Lastly, we should be sure that the quality of our tape and our machine is sufficent for the circumstances in which the listening exercises are to take place.

Tasks

Shavelson and Stern (1981), who are concerned with general educational planning suggest that task design should take into consideration the following elements:

- Content .- the subject matter to be taught.
- Materials.- the things that learners can observe/manipulate.
- Activities.- the things that learners and the teacher will be doing during the lesson.
- Goals.- the teachers'general aim for the task (these are much more general and vague than objectives)
- Students.- their abilities, needs and interests are important.
- Social community.- the class as a whole and its sense of "groupness".

Wright (1987) suggests that tasks need minimally contain just two elements. These are input data which may be provided by materials, teachers or learners and an initiating question which instructs learners on what to do with the data. He rejects the notion that objectives or outcomes are obligatory on the grounds that, with certain tasks, a variety of outcomes might be possible and that these might be quite different from the ones anticipated by the teacher.

Activities specify what learners will actualy do with the input which forms the point of departure for the learning task. Tasks could be analysed according to the extent to which they required learners to rehearse, in class, the sort of skilled behaviour they might be expected to display in genuine communicative interaction outside the classroom.

Gap Filling

We will propose two gap filling listening exercises the first one would consist on just listening to the tape and filling the missing information and the second one would involve oral exchange of information.

Exercise 12.1

Goal: Learn how to fill in a form.

Input: Chief mate report. How the student would handle a situation like the one below.

Activity: Listen to the tape and try to fill in the missing information.

Teacher role: Monitor

Learner role: Listen and fill in the missing information.

Setting: Classroom/individual work.

You will hear the boswain telling the chief mate about some damage to the cargo he has just discovered. Listen and complete the missing information on the form below:

Date: (1)	Time: (2)
Reporter: (3)	Port of loading: (4)
Port of destination: (5)	
Goods missing/damaged:	Value: Identification:
(6) (7) (8)	(9) (10) (11) (12) (13) (14)
Damage to cargo: (15)	

Exercise 12.2

Goal: Learn words and concepts related to the markings on a ship.

Input: Give the students specific words of the subject, and let them guess their meanings.

Activity: Guess meaning of words, talk about marks on the hull.

Teacher role: Monitor.

Learner role: Conversational partner, listening and filling in the missing information.

Setting: Classroom/pair work/individual work.

1.- Look at these words connected and discuss with your partner what they mean.

Load line disc Freeboard Depth Plimsoll disc

2.- What do the different load lines indicate ?

3.- Listen and complete the sentences below by writing a short phrase in each of the blank spaces :

The desirability of putting some limit ---------- has been recognised for a long time. This found practical expression in ---------- , which stipulated desirable minimum freeboards in terms of so many inches per foot of depth of hold. This was a simple but fairly adequate criterion for small flush-deck ship which did not differ materially ---------- This freeboards were intended to serve as a guide for shipmasters in loading ----------, and had no force of law.

An act of 1870 required British owners ----------on their ships, without specifying just how to arrive at this maximum loading. Investigations by ---------- resulted in the publication in ----------. A large number of owners voluntarily marked their ships.

Therefore, it was not surprising that, when a compulsory load line law was passed ----------, the previously mentioned LR freeboard tables were the legal freeboard regulations, and that Lloyd's Register 1885 construction rules ---------- which was used from then on.

Oral Practice

The Nature of Speaking and Oral Interaction

Brown and Yule (1983) begin their discussion on the nature of spoken language by distinguishing between spoken and written language. They point out that for most of its history, language teaching has been concerned with the teaching of written language. This language is characterised by well-formed sentences which are integrated into highly structured paragraphs. Spoken language on the other hand, consists of short, often fragmentary utterances, in a range of pronunciations. There is often a great deal of repetition and overlap between one speaker and another, and speakers frequently use non-specific references (they tend to say “thing”, “it”and “this” rather than “the left-handed monkey wrench”).Brown and Yule point out that the loosely organised syntax, the use of non-specific words and phrases and the use of fillers such as “well” and “oh” make spoken language feel less conceptually dense than other types of language such as expository prose. They suggest that, in contrast with the teaching of written language, teachers concern with teaching the spoken language must confront the following types of questions:

- What is the appropiate form of spoken language to teach?
- From the point of view of pronunciation, what is a reasonable model?
- How important is pronunciation?
- Is it any more important than teaching appropiate handwriting in the foreign language?
- If so, why?
- From the point of view of the structure taught, is it all right to teach the spoken language as if it were exactly like the written language, but with a few “spoken expressions” thrown in?
- Is it appropiate to teach the same structures to all foreign language students, no matter what their age is or their intentions in learning the spoken language?
- Are those structures which are described in standard grammars the structures which our students should be expected to produce when they speak English?
- How is it possible to give students any sort of meaningful practice in producing spoken English?

(Brown and Yule 1983:3)

Brown and Yule also draw a useful distinction between two basic language functions. These are the transactional function, which is primarily concerned with the transfer of information, and the interactional function, in which the primary purpose of speech is the maintenance of social relationships.

Another basic distinction we can make when considering the development of speaking skills is between monologue and dialogue. The ability to give an uninterrupted oral presentation is quite distinct from interacting with one or more other speakers for transactional and interactional purposes.

In summary, successful oral communication involves developing:

(a) The ability to articulate phonological features of the language comprehensibly.
(b) Mastery of stress, rythm, intonation patterns.
(c) An acceptable degree of fluency.
(d) Transactional and interpersonal skills.
(e) Skills in taking short and long speaking turns.
(f) Skills in the management of interaction.
(g) Skills in negotiating meaning.
(h) Conversational listening skills (successful conversations require good listeners as well as good speakers).
(i) Skills in knowing about and negotiating purposes for conversations.
(j) Using appropiate conversational formulae and fillers.

The development of oral ability is a good source of motivation for most learners. Here are some points to pay attention to:

(a) Try to find ways of demonstrating to the learners that they are making progress in the language all the time. For example, by repeating an activity from time to time, so that they can see for themselves how much more language they can use.

(b) Ensure that controlled practice, monitoring and correcting the learner's performance, is matched by opprtunities for free expresion, when the learners should not be discouraged by correction. Learners are always motivated when they find they can actually do something with the language.

(c) Show the learners how to make the best use of the little they know. Sometimes they cannot express an idea because they do not have the precise language. They need to be shown how to get round this through paraphrase and alternative expressions

(d) Finally, we should accept that some learners will never achieve a high level of oral proficiency. We, as teachers, should be satisfied if the students reach a high level of comprehension and an adequate level of production. By placing more emphasis on

comprehension we are also identifying a goal which is attainable with large classes and will therefore motivate the majority of the students.

Role play

The participants interact either themselves in imaginary situations or as other people in imaginary situations. This type of activity involves *fantasy*, it contains an element of *let's pretend.* Some of the situations used may be *realistic* – perhaps they have been chosen because they are ones in which the learners will or are likely to find themselves – but they are not *real*. They are make-believe and, to take part, the learners have to imagine they are somewhere other than the classroom. In this respect it is important because they help us escape from the classroom on an imaginative level. It also provides the opportunity for the learner to develop fluency skills: to use language *freely*, because they offer an element of choice, to use language *purposefully*, because there is something to be done, and to use language *creatively*, because they call for imagination. These kinds of activities differ, however, from other types of fluency activities in the way learners *behave through language.* It helps to develop communication skills within the broader framework of social behaviour.

Roleplay activities involve, as we noted before an elment of *let's pretend*, we can offer the learners two main choices:

(a) They can *play themselves in an imaginary* situation. For example, they can be told:

You are standing at the entrance to the school. A passer-by asks you the way to the nearest (supermarket). Give him the necessary directions.
Both participants can be themselves (although the passer-by would of course know where the supermarket is). They are also familiar with the setting: all they have to do is to project themselves into it.

(b) They can be asked to *play imaginary people in an imaginary situation*. For example, they can be told:

A is a suspicious-looking character waiting at night behind a supermarket. B is a policeman, who finds him there. B decides to arrest A, who protests and tries to explain what he is doing there.

Not only is the situation fanciful; it can also be said that the students are unlikely ever to find themselves using English in the roles of a policeman and possible burglar!
These are two deliberately extreme examples: the first a very ordinary situation; the second a piece of fantasy. They raise however, some important questions. First, what

kind of roleplay situations should we use or make the most use of—*realistic"* ones which the learners are likely to find themselves in, or *fanciful "fun"* type ones which are remote from experience? There is, unfortunately, no easy answer to this question. Clearly we should make use of some realistic situations, especially because in the case of Maritime English we can predict fairly accurately which ones are likely to be relevant to the learners, so that we can feed in some useful bits of language (eg. Ways of asking for and giving directions for the first example above). However "fun" type situations may prove to be far more stimulating. In the end, perhaps, we should decide in the light of which situation the learners prefer.

No less crucial is the question: should we ask learners to be themselves or to play the part of imaginary people? In many roleplay situations we have no choice but to ask some participants to play the part of imaginary people. For example, if you want students to use language in the context of working on board as seafarers they will necessarily play the role of imaginary people.

For roleplay to be successful, then, we need not only to identify situations which will stimulate the learners but also give them roles that will match the requirements of their personalities. Roleplay involves the learner *on a personal level*, and the more choice we allow them to create their own roles and to develop their own situations, the less risk there will be of forcing roles on them which they are reluctant or unable to fulfill.

In general, it is important to give the learners an element of choice: they must be free to choose *something* for themselves, either what they say or how to interpret the situation. Now, we will give four frameworks for roleplay practice:

Open-Ended Dialogues

This term is used for dialogues which leave the learners free to decide how to develop them. This is a satisfactory way of setting up a simple roleplay at the elementary to intermediate levels, especially for "survival " –type situations. The dialogue can be written up on the board; ways of developing it might be discussed and the students should not need to look at the text when they do their roleplay. And since there are likely to be many different interpretations, they will be naturally curious to see what the others have done. We will give two examples, the beginning of the dialogue will be given to provide a frame to start the roleplay , which is often difficult for students.

Exercise 12.3

The first example: **requesting medical assistance:**

A= Officer on board

B= Radio station ashore

A: I Require medical assistance

B: What kind of assistance do you require?

A: I require radio medical advice/ boat for hospital transfer/ helicopter to pick up person...

B: ...

In this dialogue there are several options to ask for help, so different students can develop it in different ways.

Exercise 12.4

Now, we will give an example of an exchange on board a tanker in which the students will have more freedom to develop the dialogue :

On the control platform, the Third Engineer is preparing to take over from the previous watch. The Fourth Engineer finishes writing up the log and is about to leave.

A= Third Engineer Officer

B= Fourth Engineer Officer

A: All right. I'll have the settling tank changed over now

B: Yes, O.K.

A: The steam pressure's falling ! What's up ?

B: ...

The student playing the part of the Fourth Engineer has to choose or invent the kind of failure. How the roleplay continues, however, is left to the participants.

Mapped Dialogues

For these the students are given a chart which tells them which functions they must use when they are interacting. This way of providing a framework for language practice may seem attractive, not all student find it easy to interpret these maps and charts and to interact. The students must be given plenty of practice before asking them to work in pairs. In this type of exercises each student is given part of the information and we shall also have to define the relationship between the two speakers.

Exercise 12.5

This example will be based on **acquiring and providing routine traffic data**.

The phrases should normally be preceeded by Message Markers "QUESTION", "ANSWER", "INFORMATION".	
STUDENT A	STUDENT B
1.- Ask for identification	1.- Give information
2.- You cannot hear the message	2.- Give information again
3.- Ask for course and speed	3.- Give speed, degrees,...
4.- Ask for destination	4.- Give exact information
5.-	5.- .....

Exercise 12.6

This example of every day life is reproduced with the "functional" cues for each speaker on separate cards, so that there is an "information gap" between them.

STUDENT A	STUDENT B
1.- Invite B to go out with you	1.- Decline
2.- Suggest another possibility	2.- Accept
3.- Confirm arrangements	3.- Agree

This presentation is less attractive because the students will have to work out all the way through the dialogue providing all the language for themselves. Their moves, however, are controlled throughout.

Scenarios

A scenario is a strategic interplay of roles functioning to fulfill personal agendas within a shared context.

Elements of the scenario:

- Strategic interplay: participants get involved in the exchange, which is more than simply paying lip service to social conventions. The strategic value of our utterances would depend on our skills as communicators. In the case of the secong language learner a third factor comes into play, that is competence in the target language and the mechanisms of conversational management that pertain to the target language.

- Roles are patterns of behaviour. They could be psychological (adult, parent, child, rival, etc.), or social (teacher, client, deck officer, etc.). An important feature of roles

is that they are paired, speakers share a reason for interacting with each other, but do not necessarily have the same goal.

Scenarios outline the sequence of events (like the description of a play or film) without giving any of the words used. The events could of course be presented through a series of pictures (like a picture composition sequence).

Exercise

Scenario title : "Collision in port"

There are different types of scenarios mainly depending on the number of roles and episodes involved. The following is an illustration of a multi-role scenario

Role A :

You are the captain of ship A. When approaching a berth at night, you noticed that your ship had too much headway and you warned the pilot, but when the pilot ordered full astern it was already too late. Moreover, the engine failed to reverese. You knew that the reversing gear was not very reliable but you had not notified the pilot to avoid further towing expenses. The stern tug towing line had been given to your vessel because you requested it. When the tug pulled the vessel to stop her excessive headway the towing line parted. Later you discovered that the line was worn out. As a consequence of this your vessel has collided with the stern of ship B, which had no lights on. You have been told that the watchman on ship B was asleep when the accident happened. You also knew that the pilot had been on watch for nearly 24 hours and was really tired. Your ship will be held responsible. What will you do to avoid or share liabilities ?

Role B :

You are the pilot. You have been on duty for nearly twenty four hours. While berthing ship A, you were feeling really tired and had not noticed that the ship was moving ahead fast. The master warned you and when you ordered full astern the engine did not repond. Then, when you ordered the stern tug to pull hard, the line parted and ship A bumped into ship B which was moored at the next berth. You know that everybody knew you were exhausted. You may be held responsible.

Role C :

You are the captain of ship B. Your ship was moored in port. It was late at night. You had stoped the auxiliary engine and switched on the port generator. The crew was resting and the people on watch were sound asleep. The generator had stopped and your ship's lights went out. While berthing, ship A bumped into your after end

and caused some damage to your ship. The other parties involved will try to share responsibilities with you.

Role D :

You are the stern tug skipper. It was 2 a.m. when the service of your tug was required to assist vessel A to enter and berth. When you were astern of ship A, you asked for the ship's line to tow her. The ship's officer demanded your own line instead. You gave it to him although you knew it was fairly worn out. When manoeuvring near the berth, the pilot ordered you to pull hard to counteract the excessive headway of the ship. In doing so, the line parted and the vessel collided with vessel B. You have notice that ship A did not reverse when required. Prepare your defense to avoid liabilities.

Each participant is given an agenda that rests on a base of shared information. The agendas of the roles are not mutually known, but the roles are interconnected though with not only different but conflicting goals.

Note : Special mention should be made to the bibliographical information to be found at the end of Deliverable No 22 of the MARCOM Project.

Chapter 13

Pilot Syllabus for the Teaching of Maritime English

Introduction

When the MARCOM project started it was thought that the International Maritime Organization (IMO) and the Norwegian government had supported the preparation of *Model Course 1.24: Maritime English* and that this provided the core information needed for a Maritime English syllabus. It was found, however, that the course, originally drafted had not been accepted. An earlier document written by Captain Fred Weeks for the *IMO, Detailed Teaching Syllabuses, Frameworks of Model Courses and Specimen Examination Papers,* also proved to be unobtainable. Further research revealed that a number of issues related to copyright infringement and official endorsement would probably continue to make the documents officially unavailable and thus unusable as a basis for syllabus development. Currently, the International Shipping Federation is supporting work on a Maritime English model course.

Early MARCOM research (Workpackage 5.2.6/2) identified that the majority of teachers worldwide have been using, *Seaspeak Training Manual* (1988) by F. Weeks, A. Glover, E. Johnson, and P. Strevens; *English for Maritime Studies* (1987) by T. Blakey; and/or *Wavelength* (1986) by F. Weeks as their syllabus. All recognized that these books are more than ten years out of date and often used such publications as *Fairplay* and *Seaways* to provided up-to-date information. Most reported requiring students to learn the IMO, *Standard Marine Navigational Vocabulary (1985),* but reported upon testing, that the content had been learned and not used for teaching.

It is important to understand that even the leaders in the field of Maritime English thought *IMO Model Course 1.24: Maritime English* was available. Teachers, usually having less access to the IMO than researchers, reported being confused about not being able to obtain it after seeing it on publication lists.

So in deciding what a standard syllabus should consist of the following points were considered.

- There is very little agreement as to what Maritime English is and who the expected learners are.
- The overview provided by a syllabus needs to be supported by the content of a curriculum as well as teaching materials.
- A range of skills, knowledge and abilities are needed to ensure accurate communication including: verbal (especially pronunciation), listening and hearing, writing, reading, nonverbal signals, cultural communication awareness, specialized vocabulary, and English language structure.
- It is unlikely that native English speaking mariners will learn and use an English language with limited vocabulary, structure and delivery methods.
- The IMO has endorsed the *Standard Marine Navigational Vocabulary* that has been in use and the *Standard Marine Communication Phrases* that are in trial use, but these do not meet all needs.
- On a worldwide basis, students enter their Maritime English language classes with greatly diverse English language skill levels ranging from none to fluent.
- Maritime education systems tie into different educational systems, i.e., vocational or university tracts that influence the type of syllabus needed.
- Different focuses are needed for new students versus returning students, but in some places these students are combined into one English class.
- Different focuses are needed for nautical, engineering, and other maritime occupations, but this may change as dual officer and multiple roles increase; in addition, these students are often placed in the same English classes.
- Both general English content and maritime content are needed for different shipboard levels.
- On a worldwide basis, teachers of Maritime English rarely have maritime experience and/or training in teaching English for special purposes (maritime).

- The abilities of Maritime English teachers related to speaking, listening, reading, and writing as well as communication cultural awareness vary greatly and often influence what is taught.
- Most published books for the teaching of Maritime English are out of date.
- Existing syllabuses tend to be function or topic based.
- Maritime English teachers rarely have time to teach all the skills and content needed by their students.
- Prior efforts to have a Maritime English syllabus approved and implemented by the IMO have not been successful.
- Teaching methodology is equally as important as content in language learning, retention and use.
- A review of roughly 200 Maritime English syllabus revealed a wide range of topics that are included in the teaching of Maritime English.
- When Maritime English teachers rated the importance of these topics for inclusion in a Maritime English syllabus, great differences surfaced as to what they consider important.
- The language of instruction of all courses also greatly influences what needs to be included in maritime English

Constructing the Syllabus

In conjunction with earlier workpackages, Maritime English syllabuses and teaching materials were collected from maritime teaching and training institutions worldwide. The researchers reviewed approximately 200 Maritime English syllabuses and curricula. Content was compiled and edited to include all the subject areas identified during this process. Concurrently, teachers were interviewed concerning what they felt to be important and what factors should and did influence inclusion. Seafarers, administrators and teachers were asked to identify what they thought Maritime English meant and should include.

The results were presented at the International Maritime Lecturers Association (IMLA) Workshop on Maritime English 1A (WOME 1A) held in October 1998 and participants were asked to comment and rate the importance of different areas of

content. They were also asked to work in groups to define Maritime English. Participants consisted of maritime educators, predominately English teachers, from: Australia, Bulgaria, China, Finland, Germany, Italy, Japan, Norway, Poland, Russia, Sweden, Turkey, the United Kingdom and the United States. In addition, comments were provided by Maritime English teachers who had participated in earlier phases of the MARCOM project.

What is Maritime English ?

Teams of Maritime English teachers were asked to consider this question. In addition, individuals at the World Maritime University studying many maritime subjects and from many different countries were asked to write definitions of what they thought Maritime English was. The discussions to arrive at these comprehensive definitions revealed a wide range of attitudes as to what people meant when they used the term *Maritime English.* Following are some of the definitions provided by Maritime English teachers.

****

Maritime English is a very simple, clear communication medium used by seafarers in all countries across the world ideally using standardised English technical terms and phrases.

****

Maritime English is a set of tools permitting a seafarer to carry out all his duties and operations at sea and in port.

****

Maritime English is the language used by seafarers in their communication onboard, ship-to-ship, ship-to-shore, shore-to-ship in their daily routine as well as in extraordinary situations.

****

Maritime English is the inter and intra group means of communication.

****

Maritime English is an all inclusive, yet vague, technical and communication terminology pertaining to ships and shipping, combining areas of administration, operation, regulation, training and emergencies.

****

Maritime English - that is the entirety of all those means of the English language which - being used as a device for communication within the maritime community - internationally contribute to the safety of navigation and organization of the seaborne business. (Trenkner 1996)

Who Uses Maritime English ?

In most cases related to this study, Maritime English teachers were teaching people who planned to work or already worked in the maritime field. Most taught students who planned to be at sea for a few years and then obtain employment onshore. The exceptions were teachers who knew their students would not get such jobs and schools that were still officially maritime schools, but enrolled students with other interests. Many of these students could obtain employment in technical fields using skills learned during their maritime education.

When educators at the WOME 1A conference were asked to identify, "Who uses and needs to know Maritime English?" they arrived at different answers grouped in different ways. Following is a summary of their answers:

Table 13.1 Group I

A. Onboard seafarers 1. Navigation officer 2. Engineer officer 3. Deck crew 4. Engine crew 5. Radio officer	B. Authorities 1. Inspectors 2. PSC officer 3. Customs officer 4. Marine accident inquiry court 5. Marine accident inquiry judge and prosecutor
C. Port Personnel 1. Pilot 2. Tug personnel 3. Harbour boat driver	D. Maritime Educational Personnel 1. Maritime English teacher 2. Maritime students 3. M.E.T. educators
E. Ship support personnel 1. Ship handler 2. Ship's agent 3. Shipyard engineer 4. Insurance company's personnel 5. Maritime publication editor 6. Classification personnel	

Table 13.2 Group II

A. Personnel in active onboard service 1. Seafarers 2. Pilots 3. Coastguard 4. Lifeboat institutions 5. RCC	B. Shore-based personnel of the shipping authorities 1. Port administrators 2. Customs officials 3. Immigration 4. Health 5. Radio stations 6. RCC and lifeboats
C. Economic Organizations 1. Shipping companies 2. Agents 3. Charterers 4. Insurers 5. Classification companies 6. Ship handlers	

Table 13.3 Group III

A. The ship and her operation 1. Personnel onboard 2. Pilots 3. Tugs 4. Vessel Traffic Service	B. Administration/Regulation National Bodies (governments), i.e. port state control
C. Supervisors 1. Shipowners 2. Shipping companies 3. Shipping superintendents 4. Shipping agents 5. Manning agents 6. Charterers	D. Ship builders/ shipyards
	E. Maritime Education and Training
F. Search and Rescue 1. Salvage 2. GMDSS personnel 3. Searching aircraft	G. Certification 1. Insurance 2. Classification societies, including surveyors

Table 13.4 Group IV

A. Tasks onboard 1. Seafarers	B. Tasks onboard and ashore 1. Port authority 2. Pilot 3. Shipping company/agency 4. Classification society 5. Marine insurance 6. Stevedoring company 7. SAR coordinators 8. Shiphandlers
C. Tasks ashore 1. VTS/ equipment operators 2. Shipyard 3. English teachers	

Table 13.5 Group V

A. Seafaring Personnel B. Shore-based traffic control C. Public maritime authorities D. Shipping companies

Table 13.6 Group VI

A. Distress 1. Rescue services / helicopters 2. Coastguard	B. Shipboard operators 1. Captains 2. Officers 3. Engineers 4. Crew VTS services 5. Documents
C. Berthing 1. Pilots 2. Port services	D. Loading/unloading 1. Stevedores
E. Shore services 1. Shore stations 2. Coastguard 3. Ship handlers 4. Agents 5. Meteorological services 6. Maritime English teachers 7. Pollution control 8. Port control	

The content arrived at by the six groups demonstrates the range of people who need to use Maritime English and the variety of ways of considering these groups. Classifications of the types of language skills needed should also consider those who:

- communicate face to face and those who do not;

- communicate within the group and those who communicate externally;
- work on board all the time, some of the time, and never;
- use specific types of technical terminology.

Teachers also expresses opinions that:
- both subject and content are needed;
- deck officers need more hours of English than engineers;
- a distinction needs to be made between maritime subjects taught in English and English taught for use with maritime subjects;
- a syllabus needs to have a bias toward safety, efficiency and social competence onboard.

Most work to date, specifically the SMNV and SMCP, focuses on the language needs of navigators at sea, especially in emergency situations. However, modern communication systems have resulted in situations where decisions can be based on communication from shore-based personnel and shipping companies. This communication must be accurate to result in safe and beneficial decisions.

Will One Syllabus Meet all Needs ?

The findings of this report indicate that one Maritime English Syllabus will not meet all needs. It has already been established that distribution of information to the teachers in the field in the past has been at best incomplete. Even if a syllabus is distributed, the teaching situations (as described in Deliverables 5.2.6/1 and 5.2.6/2) are so diverse that one syllabus could hinder successful language teaching. In some countries students are separated into nautical and engineering tracks and have different English syllabuses depending on the track and level while in others the one English classroom has students from both tracks as well as students with technical backgrounds, university backgrounds, and returning for updating with twenty years of sea experience and possible a few fishermen. In addition, class sizes may range from five students to sixty students greatly influencing the teaching methodology and rate of advancement.

Language is a developmental skill, not subject information. It is possible that a teacher can use a comprehensive syllabus and select what is appropriate for the exact class situation. This requires, however, that the teacher has the training to do this and that there is an industry standard. Teachers within the same country sometimes do not agree on what is needed or is most important.

Throughout this research, people have pointed to the SMCP as the answer. However, as can be seen from the definitions of Maritime English, the phrases are only a part of what is needed. Learning these phrases does not mean a seafarer has all the language skills needed. Also, research to date indicates that most education and training institutions in countries where English is the native language are not teaching these phrases. Seafarers who have learned and are using them complain that they cannot understand these other speakers. Unless agreement is reached that all mariners and those communicating with them will learn and use the phrases, seafarers using English as a second language must have a broader range of English than that covered by the phrases.

Establishing entry and exit levels at maritime education and training institutions for English proficiency in listening, speaking, reading and writing along with a quality assessment mechanism is important. If it could be assumed that all entering students would be at an intermediate or even a low intermediate level upon entry, possibly band 4 in the banding system, the task of designing a syllabus that would be adopted worldwide would have a greater chance of success.

The Maritime English Syllabus

Outline of Content

I.	General English Vocabulary
II.	English Usage and Skill Areas
III.	Basic Maritime English
IV.	Modules for Specific Activities
V.	Specialized Modules
VI.	English to be Learned in Content Courses

This syllabus assumes that the Standard Marine Communication Phrases (SMCP), under trial at the time of this preparation, will be adopted by the IMO with only minor changes. The SMCP are incorporated into the content and identified by section number. In addition, the most relevant IMO regulations and conventions as of this date are also incorporated. Dr Professor Peter Trenkner has presented syllabus and curriculum materials for the SMCP elsewhere in this report and this syllabus material is not repeated here.

A compilation of syllabus content was distributed to Maritime English teachers to rate each item in terms of importance. The results support what we have determined from reviewing syllabuses and from interviews. The experts at the IMLA conference on Maritime English are the prime informants. More time and financial support would allow for a wider range of responses. Many teachers wrote in comments, some of which are included. Content was also adjusted and moved based on responses. Not all items were answered which accounts for cases were totals to not add up to one hundred percent.

The following code is used to identify the importance of each subject as identified by the respondents: **Table 13.7**

Officer:	very important, but primarily for officers or specific roles
All 1:	very important for all to learn
2:	important
3:	not very important

No rating means that the category was added as a result of comments after the rating was completed.

General English Vocabulary

Students need to have general English preparation before starting to focus on maritime content if they are to reach a satisfactory level in the time normally provided for English instruction.

Table 13.8

Category	**Rating of importance %**			
General	**Officer**	**All-1**	**2**	**3**
Colors	7	87	7	0
Shapes	7	73	13	7
Direction	13	73	7	7
Time	7	87	7	0
Size	7	67	13	13
Numbers	0	87	7	7
Speed	13	67	7	13
Tools	33	47	20	0
Animals, fish	13	27	27	33
Currency	27*	47	13	13
Temperature	13	67	13	7
Human Body parts (*medical description)*	0	60	33	7
Location (*compass points, ship location)*	7	73	7	13
Sounds (*foghorn, alarm*)	20	53	13	13
Weight+				
Age+				
Equipment+				
Vehicles+				
Nationality/countries+				

+ not surveyed *Purser

English Usage and Skill Areas

Table 13.9

Category	**Rating of importance %**			
Usage	**Officer**	**All-1**	**2**	**3**
verb tense (*simple present, past, and future, present perfect*)	0	87	13	0
Prepositions	13	67	13	7
Conditionals	7	67	20	7
Modules	13	67	13	7
Adjectives	7	73	7	13
Adverbs	7	73	7	13
English alphabet+				
Phonetic alphabet+				

+*not surveyed*

Table 13.10

Writing	**Officer**	**All-1**	**2**	**3**
Cargo damage and claims letters	67	13	13	7
Salvage agreements and claims letters	60	20	13	7
Insurance claims	53	13	27	7
Business correspondence	60	13	20	7
E-mail	33	13	40	13
Complaints	47	13	33	7
Documents and Reports	47	13	33	7
Letters of Indemnity	60	7	27	7
Master's reports	73	7	13	7
Bill of loading	67	20	7	7
Witness evidence	53	7	27	13
Performance reports	53	13	27	7
Statement of sea protest	67	7	20	7
Log	53	33	7	7

Table 13.11

Read and Understand	**Officer**	**All-1**	**2**	**3**
Professional publications	40	27	27	7
Legal agreements+				
Operational and repair manuals+				

+not surveyed

Table 13.12

Speaking and Listening	**Officer**	**All-1**	**2**	**3**
Greeting exchange	13	67	13	7
Giving orders*	13	73	7	7
Understanding orders	0	93		7

*Especially masters and officers

Basic Maritime English

This section includes topics that are included in many syllabuses for maritime English students to learn.

Table 13.13

Category	**Rating of importance %**			
Ships	**Officer**	**All-1**	**2**	**3**
Types *(passenger, cargo, Ro-Ro, tugs, dredgers …)*	20	73	0	7
Design/Construction *(keel, beam, girder, hull, bulkheads …)*	33	53	13	0
Parts of a vessel *(deck, bow, hatch, rudder …)*	13	73	13	0
Tonnage measurement*	47	33	7	13
On board the vessel – terminology	7	80	13	0
Navigating bridge*	40	53	7	0
Accommodations *(galley, cabins …)*	20	40	20	20
Tools and hardware *(wrench, pliers, vice, spanner …)*	33	20	40	7
Ship organization (crew/who does what?)	7	80	13	0
Shipboard equipment	13	73	13	0
Equipment and maintenance	27	47	27	0
Emergency procedures*	0	100	0	0
Stability and trim*	53	33	13	0
Ships and ship routine*	13	47	27	13

*noted as being important for deck officers

Table 13.14

Ports	**Officer**	**All-1**	**2**	**3**
Port operations	47	27	20	7
Port facilities	47	20	27	7
Port regulations*	20	67	7	7
Loading/unloading/ berthing*	40	47	13	0
Pilot on board*	40	40	20	0
Tugs*	47	33	7	13
Customs	33	27	27	13
Cargo/cargo-handling equipment*	53	27	13	7
Dangerous cargo*	33	60	7	0
Trim and stability and ship construction*	40	40	20	0

noted as being especially important for the master and deck officers

Table 13.15

Life On Board	**Officer**	**All-1**	**2**	**3**
Seamanship	**20**	**60**	13	**7**
Seamen’s duties	7	73	20	0

Sanitary and hygiene	20	33	27	20
Maintenance and refitting	20	53	20	7
Medical emergency and first aid*	13	67	20	0

**noted as being important for chief officer, nautical and engineering cadets*

Table 13.16

Maintenance	**Officer**	**All-1**	**2**	**3**
Engineering department+				
Deck department+				

+not surveyed

Table 13.17

Marine Meteorology*	**Officer**	**All-1**	**2**	**3**
Currents	33	47	13	7
Tides	33	47	13	7
Storms	40	47	7	7
Tropical cyclones	40	47	7	7
Weather forecasting	47	47	7	0
Climatology	53	20	13	13
Weather instruments	60	13	20	7

**noted as being important for the master and deck officers*

Table 13.18

Marine Geography	**Officer**	**All-1**	**2**	**3**
Ice berg	33	33	27	7
Coral reef	47	20	20	13
Inlet	27	27	33	13
Island	20	27	27	27
Oceanography	40	13	27	20

Table 13.19

Marine Astronomy	**Officer**	**All-1**	**2**	**3**
Descriptive astronomy*	40	20	20	20

*noted as being important for the master and deck officers

Table 13.20

Safety at Sea	**Officer**	**All-1**	**2**	**3**
Conventions (SOLAS,STCW, MARPOL, GMDSS, INMARSAT, COLREGS)	20	73	7	0
Firefighting (IMO model course 1.20)	0	100	0	0
Life-saving appliances	0	100	0	0
Oil spills *(spreading, evaporation, dispersion, emulsion, booms …)*	20	73	7	0
First aid at sea	7	87	7	0
Survival at sea	0	100	0	0

Prevention of ship's casualty	20	73	7	0
Oil tanker safety with inert gas system/crude oil washings*	40	53	7	0
Advanced oil tanker operations*	53	40	7	0
Personal survival (IMO model course 1.19)	7	87	7	0

*noted as being important to the tankerman, deck and engine personnel

Table 13.21

Communications at Sea*	**Officer**	**All-1**	**2**	**3**
Radio communications	33	53	13	0
VHF	33	53	13	0
Distress situations	27	67	7	0
Requiring assistance	27	67	7	0
Inmarsat	33	53	13	0
GMDSS	33	53	7	7
EDI	47	40	7	7
Marine telecommunications	40	33	20	7
Radiotelephony	40	33	20	7
Signals and communication	27	40	33	0
Radar simulation	53	27	13	7
ARPA (Automatic Radar Plotting Aid)	40	40	13	7

noted as being mainly for deck officers

Table 13.22

Cross Cultural Communication*	**Officer**	**All-1**	**2**	**3**
Communication and accidents				
Crew composition				
Direct language communication				
Gestures and symbols				
Indirect communication				
Factors influencing communication				
Cultural interference				

*English teachers report that they incorporating this subject knowing that their students will be working with international crews.

Table 13.23

IMO	**Officer**	**All-1**	**2**	**3**
History	20	20	20	40
How it functions	20	20	27	33
Colregs	7	47	27	20
SOLAS/STCW/MARPOL 73/78	40	33	13	13
ILO documents for guidance 1985	27	20	20	33
Maritime Labour Convention and Recommendations	7	20	40	33

Table 13.24

IMO Standard Marine Communication Phrases	
Safety at Sea: onboard	
Safety onboard	SMCP: IV,B
Raising alarm	SMCP: IV,B,1.1
Briefing crew & passengers	SMCP: IV,B,1.2
Escape routes	SMCP: IV,B,1.3
Life boats/routes	SMCP: IV,B,1.4
Evacuation	SMCP: IV,B,1.5
Roll call	SMCP: IV,B,1.6
Abandon	SMCP: IV,B,1.7
In-boat	SMCP: IV,B,1.8
Occupational safety	SMCP: IV,B,2
Fire protection	SMCP: IV,B,3.1
Fire fighting & drills	SMCP: IV,B,3.2
Damage control	SMCP: IV,B,4
Grounding	IV,B,5
Search & rescue	IV,B,6

Table 13.25

IMO Standard Marine Communication Phrases	
Cargo & handling	
Loading & unloading	SMCP: IV,C,1.1
Dangerous goods	SMCP: IV,C,1.2
Liquid goods, bunker, ballast	SMCP: IV,C,1.3
Preparing for sea	SMCP: IV,C,1.4

Table 13.26

IMO (STCW/ISM)
Crew communications are clear and effective at all times
Crew are able to understand orders & communicate with others in relation to shipboard duties
Ship personnel are able to communicate effectively in duties related to SMS
Seafarers are able to understand, give orders and instructions, report back, receive information on the SMS in the working language

Modules for Specific Activities

Table 13.27

Category	**Rating of importance %**			
Navigation*	**Officer**	**All-1**	**2**	**3**
Electronic aids to navigation	47	40	7	7
Sea charts	33	53	7	7

INS	47	40	7	7
Ship- handling	47	40	7	7
Buoys and lightvessels	40	47	7	7
Land and sea marks	40	47	7	7
Course, speed and distance	40	47	7	7
Steering and maneuvering	40	47	13	0
Dangers to navigation	33	53	13	0
Tide and depth	40	47	7	7
Prevention of collision	33	53	13	0
Celestial navigation	73	7	13	7
Electronic navigation	67	20	7	7
Instrumentation and Automation	73	0	20	7
Signals and Communication	47	27	20	7
Sailing schedule and navigation planning	47	33	13	7
Coasting and Ship's route	53	27	13	7
Terrestrial navigation	47	20	20	13
ENS (Electronic Navigation Systems): satellite navigator, Echo sounders, Radio direction finders, Omega, Loran C, Decca, Docking sonar and global positioning system	67	20	7	7
Navigational instruments	67	20	7	7

*primarily for deck officers

Table 13.28

IMO Standard Marine Communication Phrases		
onboard		
		SMCP: IV,A
Wheel orders		SMCP: IV,A,1
Engine orders		SMCP: IV,A,2
Handover of watchkeeping		SMCP: IV,A,3
Trim, list, stability		SMCP: IV,A,4
Pilot on bridge		SMCP: IV,A,5
	Propulsion	SMCP: IV,A,5.1
	Maneuvering	SMCP: IV,A,5.2
	Radar	SMCP: IV,A,5.3
	Draft, air draft	SMCP: IV,A,5.4
	Anchoring	SMCP: IV,A,5.5
	Tug assistance	SMCP: IV,A,5.6
	Berthing	SMCP: IV,A,5.7

Table 13.29

IMO (STCW/ISM)	
Navigation	
Officer in charge must be able to use radar and ARPA in clear communication	Ships 500 gross ton Navigational watch

Officer in charge must be able to use SMNV replaced by SMCP and be able to use English in written and oral forms	Ships 500 gross ton Navigational watch
Officer in charge must be able to conduct radio communication and visual and sound signals in normal and emergency situations	Ships 500 gross ton Navigational watch
Communication is clear, immediate, reliable and relevant to the business at hand	Navigational watch
Officers use communication that is clear and understood	Navigational watch
Officers use SMNV replaced by SMCP	Navigational watch
Officers use English in written and oral forms	Navigational watch
Officers correctly interpret and understand English language charts, nautical and navigational publications, meteorological information, and messages concerning ship safety and operation	Navigational watch
Officers are able to communicate in English with other ships and coastal stations	Navigational watch
Officers are able to use English to perform officer's duties with a multilingual crew	Navigational watch
Officers are able to correctly draft English language messages	Navigational watch
The officer in charge is able to conduct radio communication and visual and sound signals in normal and emergency situations	Navigational watch
Relieving officer is informed of lines of communication available between ship and shore and port authorities	Navigational watch
Ratings have the ability to understand orders and communicate with the officer of the watch in matters relevant to watchkeeping duties	Navigational watch
Ratings use clear and concise communication and acknowledge orders in a seaman like manner	Navigational watch
Ratings seek clarification from officers on the watch if information and instructions are not clearly understood	Navigational watch
Ratings are able to steer the ship with helm orders in English	Navigational watch
Ratings understand wheel orders given by pilots in English	Navigational watch

External Communication

Table 13.30

IMO Standard Marine Communication Phrases	
External Communication	
Distress messages	SMCP: III,1.1
Search & rescue	SMCP: III,1.2
Person overboard	SMCP: III,1.3
Medical assistance	SMCP: III,1.4

Urgency communication	SMCP: III,2
Safety communication	SMCP: III,3
Warnings: weather, sea, etc.	SMCP: III,3.1
Warnings: navigational	SMCP: III,3.2
Environment protection	SMCP: III,3.3
Pilotage	SMCP: III,4
Helicopter	SMCP: III,5.1
Ice-breaker	SMCP: III,5.2
VTS	SMCP: III,6
Data for traffic Image	SMCP: III,6.1
Phrases for VTS	SMCP: III,6.2
Phrases between VTS	SMCP: III,6.3
With emergency & allied services	SMCP: III,6.4

Table 13.31

IMO (STCW/ISM)
Radio Personnel
GMDSS radio operators have knowledge of the use of the International Code of Signals
GMDSS radio operator has knowledge of SMNV as replaced by SMCP
GMDSS radio operators has knowledge of written and spoken English for communication of information relevant to safety of life at sea
Radio personnel can use the International Code of Signals, international phonetic alphabet
Radio personnel can use the SMNV replaced by SMCP for satisfactory exchange of communication
Radio personnel use the English language, both written and spoken for satisfactory communication relevant to safety of life at sea
Radio personnel are able to seek medical assistance

Engineering

Table 13.32

Category	**Rating of importance %**			
Engines*	**Officer**	**All-1**	**2**	**3**
Cylinder cover	69	15	8	8
Piston with rod and stuffing box	69	15	8	8
Cylinder liner and cylinder lubrication	71	14	7	7
Crosshead with connecting rod	74	9	9	9
Crankshaft, thrust bend turning gear	69	15	8	8
Mechanical control gear	74	9	9	9
Starting air system	74	9	9	9
Exhaust valve	74	9	9	9
Fuel oil system	74	9	9	9

Turbocharger system	66	9	16	9
Safety equipment	75	9	16	9
Marine engineering and design	66	0	9	0
Engineering electronics	74	9	9	25
Controls	74	9	9	9
Hydromechanics (marine hydraulics)	66	9	16	9
Marine Engine	69	15	8	9
Electricity and Electronics	66	0	25	8
Machinery work	66	0	25	9
Marine Electricity	61	8	21	9
Mechanical engineering	59	9	16	8
Internal Combustion Engine and Steam Engine	66	9	16	16
Auxiliary Machinery system	74	9	9	9
Modern Marine Propulsion System Gas Dynamics	66	0	25	9
Offshore Engineering Structures	58	9	9	25
Engineering Economics	59	0	25	16
Mechanical Science	59	0	25	16
Physical and Chemical Properties of fuels and lubricants	66	0	25	9
Operation and Maintenance of Machinery	74	9	9	9
Marine Engineering Materials	66	0	25	9
Marine Engineering Maintenance	66	16	9	9
Machine Tools	66	16	9	9
Main engine and auxiliary machinery	40	40	20	0
Bunkers and fuel	27	47	27	0

*Primarily for engineers. Some respondents said they did not feel qualified to respond to this section and did not respond at all or only to some sections. One said he had consulted the head of the engineering department at his school.

Table 13.33

IMO (STCW/ISM)	
Marine Engineers	
Officer in charge has an adequate knowledge of English to use engineering publications and perform engineering duties	Engineering department
Officer has an operational use of English in written and oral forms	Engineering department
Relieving officer shall be informed of lines of communication between ship and shore and port authorities	Engineer watch
Ratings use communication that are clear and concise	Engineer watch
Ratings understand orders and are able to be understood in matters related to watchkeeping	Engineer watch
Ratings request advice or clarification where watch information or instructions are not clearly understood	Engineer watch

Ratings are able to use appropriate internal communication system	Engineering watch
Chief and 2nd engineer officer needs to be able to operate all internal communication systems onboard and able to transmit and receive messages consistently successfully	Ships powered by 3000kW + Engineer watch

Passenger ships

Table 13.34

IMO (STCW/ISM)	
Passenger Ships	
Safety instructions provided to passengers are in their native languages sufficient to assist during an emergency	Passenger ship
Emergency announcements broadcast during drills are in languages understood and sufficient to provide understandable guidance to passengers and facilitate crew assistance.	Passenger ships
Crew members are able to communicate with passengers using language(s) of passengers usually carried on the route	Passenger ships
Language skills are sufficient to assist passengers during an emergency taking into account the language(s) of passengers usually on the route.	Passenger ships
Crew members are able to use elementary English vocabulary for basic instructions	Passenger ships
Crew during an emergency take into account that use of elementary English vocabulary for basic instructions can provide a means of communicating with passengers in need whether or not a common language is shared	General
Crew members are able to use demonstrations and hand signals useful during emergencies as well as identify instructions, muster stations, life-saving devices or evacuation routes	Passenger ships
Training for key personnel should have included communication as part crisis management	Ro-Ro Passenger ships
Master, officers, ratings, other personnel should be able to conduct crowd management in clear reassuring orders	Ro-Ro Passenger ships

Table 13.35

IMO Standard Marine Communication Phrases	
Passenger Care	
Conduct onboard	SMCP: IV,D,1.1
Prohibited areas	SMCP: IV,D,1.1.2
Briefing safety regs.	SMCP: IV,D,1.2
Evacuation & boat drill	SMCP: IV,D,2

In emergency	SMCP: IV,D,3

Other

Table 13.36

Category	**Rating of importance %**			
Booking/chartering	**Officer**	**All-1**	**2**	**3**
Types of shipbrokers	33	0	53	13
Types of chartering	40	0	47	13
Chartering procedure	40	0	47	13
Charter party	53	0	33	13

Table 13.37

Search and Rescue	**Officer**	**All-1**	**2**	**3**
Salvage operations	40	47	7	7
Prevention of ship's casualty	20	67	13	0

Table 13.38

Marine Insurance	**Officer**	**Al-1**	**2**	**3**
Policies	40	0	53	7
P&I Clubs	40	0	53	7

Table 13.39

Shipping and International Trade	**Officer**	**Al-1**	**2**	**3**
Liner Conferences	33	0	53	13
Freight rates	27	0	53	20
Tramp shipping	40	0	47	13
Flag discrimination	33	0	53	13
Flags of Convenience	40	0	53	7
Bills of Lading	53	20	20	7
Booking note	47	0	47	7
Freight cargo manifest	53	7	33	7
Passenger crew list	47	0	47	7
Log	53	13	27	7
Merchant shipping	53	0	40	7

Table 13.40

Dredging	**Officer**	**All-1**	**2**	**3**
(See CEDA Multi Lingual Dredging Terminology)+				

+not surveyed

Table 13.41

Marine Economics	**Officer**	**All-1**	**2**	**3**
Freight rates	60	0	40	0
Sale and purchase of ships	47	7	27	20
Economics and Maritime transport	47	7	47	0
Principles of Economics	47	7	33	13
Financial Analysis	47	7	13	33
Business Law for Ship Operators	60	7	33	0
Labour Economics	47	7	20	27

Table 13.42

Shipyard repairs+	**Officer**	**All-1**	**2**	**3**
Repair list				

*not surveyed

Specialized Modules

One solution to the different levels of English learners, different learning and teaching time available, different occupational goals of students, and different country needs is to include modules in the syllabus that may or may not be incorporated into the total learning plan.

Table 13.43

Category	**Rating of importance %**			
Maritime Administrators	**Officer**	**All-1**	**2**	**3**
Legal English	47	33	13	7
Classification Societies	47	20	27	7
International organizations (INTERTANKO, ICHCA, ICS, IMO,ILO, INMARSAT, CENSA,ICOTAS …)	40	7	47	7
Ship management	27	47	20	7
Analysis of marine accidents	33	27	40	0
International finance and trade practice	20	27	33	20
Personal Management	27	27	33	13
Organization Staff	20	33	33	13
Training on board ships	27	47	20	7
Maritime policy	20	27	40	13
Seafarer’s administration	20	33	33	13
Training ship training	20	40	33	7
Documents and Reports	33	33	27	7
Repair and Inspection	27	33	27	13
Maritime Leadership and Behaviour (MDB)	33	27	27	7
Managerial Economics	40	13	40	7
Marketing	40	13	20	27

Table 13.44

Oil spills	**Officer**	**All-1**	**2**	**3**
Clean up operations	33	47	13	7
Air and Water Pollution	33	40	20	7

Table 13.45

Collisions	**Officer**	**All-1**	**2**	**3**
Ice	27	33	33	7
Vessels	20	47	27	7
Salvage	20	47	27	7

Table 13.46

Maritime Law and Marine Insurance	**Officer**	**All-1**	**2**	**3**
Admiralty law	47	13	33	7
Law of the Sea	47	20	27	7
Policies	40	13	40	7
P&I Clubs	40	0	40	20
Sanitary Law	40	13	33	13
Maritime Law	47	13	33	7
International Law	40	13	33	13
Business Law for Operators	33	7	47	13
Bill of Lading	67	13	13	7
Insurance Claims	53	13	27	7
Cargo Damage and Claims	60	20	13	7
Salvage Claim	33	27	33	7
Sea Protest	53	13	27	7

Table 13.47

Waste and Dangerous Cargo	**Officer**	**All-1**	**2**	**3**
Air Pollution	33	33	27	7
Garbage	27	27	40	7
Ballast Water	20	27	47	7
Oil Pollution	13	60	20	7
Sulfa limits	47	0	47	7
Radio active material	27	27	40	7
Safe Cargo Handling and Storage	40	27	27	7

Table 13.48

Military/war*	**Officer**	**All-1**	**2**	**3**

*****Maritime English is taught in coast guard and military institutions and some countries provide domestic training in these institutions. More research is needed to identify content that is needed in this topic.

English to be Learned in Content Courses

In most maritime training and education schools the courses are taught in the language of the country. Increasingly, however, the textbooks are in English and specialised words are used in English. This specialised English is best learned within the context of the course rather than in a separate maritime English course. A team teaching situation can be very beneficial.

Table 13.49

Category	**Rating of importance %**			
	Officer	**All-1**	**2**	**3**
Mathematics for navigation	20	20	47	13
General electronics	13	20	53	13
Engineering mechanics	33	13	40	13
Marine radio technology	40	13	33	13
Chemistry for navigation and marine engineering	27	7	53	13
Engineering mathematics	20	13	53	13
Circuitry	13	7	60	20
Electronics	20	13	47	20
Hydrodynamics	27	7	60	13
Thermodynamics	20	7	53	20
Metal technology	20	7	53	20
Machine design	20	7	53	20
Micro computers	27	7	47	20
Metal work	27	7	53	13
World marine geography	20	13	40	27
Naval architecture	27	13	47	13
Stowage planning	47	7	33	13
Computer Science and mathematics	27	13	40	20
Nuclear Science	13	7	40	40
Basic Engineering Science	13	20	53	13

Teaching Materials

Following are some sample lessons designed to give the student practice with Maritime English. Four different types are included:

1. Student centered Vessel Disaster Project
2. Professional speaker based exercises
3. Magazine based exercise
4. Course based exercises

World Maritime University, has contributed these sample materials which are inlude in annex 1 of this volume of the report.

The following is concluded:

- It is unlikely that one Maritime English syllabus can meet all needs as identified in 1998 although it may become more possible in future years as basic English levels improve. One syllabus could result in some institutions "teaching down" and others "teaching up."
- Maritime institutions and teachers need a mechanism to assist teachers in sharing syllabuses, curriculums and materials.
- Many individuals from many countries have developed Maritime English syllabuses, but adoption and/or use of one or parts of these involve copyright and political issues.
- This deliverable presents the start of a modular approach from which a teacher could select to meet the needs of his/her students.
- This deliverable presents a topic syllabus. Budget and time restrictions caused this project to be stopped before it could be more inclusive.
- This deliverable presents sample English lessons using student interaction, maritime lectures, maritime materials and maritime courses.
- Because the maritime field is constantly changes, mechanisms will have to exist to continually update a maritime English syllabus and materials.

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Annex 2.1

The Vessel Disaster Project

The Vessel Disaster Project (VDP) is an English Language exercise involving group work and cooperative study skills. The objectives of the VPD are

- to develop and practice oral presentation skills
- to gain confidence in public speaking
- to experience the usefulness of cooperative study
- to develop library research skills
- to integrate all language skills
- to acquire the vocabulary of vessel disasters and vessel casualty investigations

In this exercise students are integrating the skills they have been studying for approximately 8 weeks. The skills involved are listening skills, speaking and presentation skills, reading skills, writing skills, computer skills and library research skills.

The students are placed into groups of a maximum of 8; each group consisting of students of mixed English language proficiency and mixed language background. Seafaring experience is also taken into consideration when creating the groups. Each group has to appoint a group coordinator.

The aim of the project is for students to do research into a vessel disaster, work together as a team and then to give an oral presentation to other students and staff.

An introduction to the aims of the project and a list of library resources are given to the students. This is followed by former VDP presentations on video so that they get an idea of the final presentation. Further oral presentation skills, e.g. non-verbal communication, structuring of information through logical transitions, the use of audio-visual aids, voice projection, pace and fielding questions are introduced.

The students are encouraged to work together as a team. However, each group has a teacher assigned for guidance. Approximately 4 to 5 days should be given to preparations. Each group is given 1 hour for the presentation and 15 minutes for questions and answers.

There are several reasons for the success and popularity of the VDP. First, the thematic focus of the project, maritime disaster, is relevant to the students. Second, the project gives them an opportunity to use speaking, listening and reading skills in a real situation and to reflect on their own level of task performance in English. Through oral presentation rehearsals, students gain valuable confidence in public speaking. Another reason for the success of the project is teamwork. Supervising teachers monitor group work to provide guidance and feedback to groups and individuals. Finally, groups are motivated by the prospect of final presentations before an audience of their colleagues and future lecturers and professors, as well as the fact that the presentation is videotaped for evaluation.

Listening Skills: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Instructions: The student will listen to a tape recording of the talk titled above. The student will be hearing actual delivery on an up-to-date topic. The following twelve exercises are based on the tape-recorded talk.

Reorder the sentences by numbering them. The first sentence in the passage starts with the words:

When you look at basic ship ownership, you start right from...

_____ A have a large or small or no shipbuilding

_____ B industry, then you are probably

_____ C the very beginning - from constructing and

_____ D a second hand market or

_____ E new ships outside.

_____ F country in the shipbuilding industry? Do you

_____ G going to buy ships at

_____ H industry? If you are not in the shipbuilding

_____ I really on your country. Is your

_____ J building a ship. This depends

Cloze test: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Listen to this section of the lecture and fill in the missing words.

These were ten LNG carriers built in the United States and the _____ cost for the ten LNG carriers was _____ dollars. But the American company which had built _____ ships were _____ to have a contract to carry LNG from Algeria to the United States and they had no _____ clause in the contract because _____ when they gave the order to the shipyard, the contract between the American company and the _____ government was not _____ and in fact it was never completed. Finally, the _____ government and the _____ company could not agree _____ the price. So there was this company sitting with basically _____ dollars _____ shipping and no way to stop the _____ of those ships. So, somebody who gave that _____, I don't think, is working _____ that company anymore.

Comprehension questions: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

1 There are various steps to consider if you buy a new ship or a second hand ship. Name two of those steps.

I _____

II _____

2 At the time of the lecture it was a buyer's paradise, i.e. there were more shipyards than orders to build ships. What do you have to take into consideration regarding the shipyard in such situation?

_____

_____

3 From the legal point of view price is not everything. Why?

_____

_____

4 What is an escape clause?

_____

_____

5 The second clause is related to price fluctuation. What are the three things you have to consider?

_____

_____

6 Why is financing the most difficult legal area of shipbuilding construction?

_____

_____

7 You need very specialized legal advice in financing contracts because they are complicated

in terms of _____

in terms of _____

in terms of _____

Prepositions: Legal aspects of ship operations and ship and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Complete the sentences below by using an appropriate preposition.

1 Professor Gold is amazed _____ what mistakes are made in shipbuilding contracts.

2 The shipyards are starved _____ orders.

3 The Korean company tore _____ the LNG and turned them _____ bulk carriers.

4 There are two big bridges that go _____ the harbour in Halifax.

5 It will be another 100 years before the bridge is paid _____.

6 The banks were very anxious _____ get the business.

7 If you do not have good relations _____ a certain country, you cannot ask that country to build your ships.

8 Business is one thing, so politics has to stay _____ it.

Comprehension true/false questions: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

*Please answer the following questions by choosing **T** (true) or **F** (false).*
Cross out the incorrect answer.

1	It's more expensive to build a ship in France than in Shanghai.	T/F
2	It is not as cheap to build a ship in Sweden as it is in Japan.	T/F
3	It is less expensive to build a ship in Sweden than it is in Japan.	T/F
4	It is as inexpensive to build a ship in France as it is in Japan.	T/F
5	A shipbuilding contract is a legal instrument which is extremely complex.	T/F
6	If you make a commercial decision for political reasons, it is always a good decision.	T/F
7	Shipyards very often willingly provide partial financing.	T/F
8	It is common for a shipyard to offer 60 to 70 percent financing.	T/F

Vocabulary: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Match the words on the left with the definitions on the right.

1. willing _____	a. an agreement where someone lends money to another person so that he/she can buy a property, the property being used as the security
2. financing _____	b. a security granted a creditor on the property of a debtor without transfer o possession or title
3. interest rate _____	c. a promise made by a person that he/she will do what someone else is obliged to do if that other person fails to do it
4. mortgage _____	d. percentage charge for borrowing money; percentage paid on an investment
5. hypothec _____	e. providing money
6. guarantee _____	f. ready, prepared
7. dispute _____	g. hesitant, disinclined, averse
8. reluctant _____	h. disagreement, argument

Vocabulary: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Match the words on the left with the definitions on the right.

1	prevalent _____	a	right to receive dividends as part of the profit of a company in which you own shares
2	synopsis _____	b	part of a payment which is paid regularly until the total amount is paid
3	linkage _____	c	company which handles the work of recording money paid, received borrowed or owed
4	equity _____	d	thing belonging to a company or person, and which has value
5	installment _____	e	outline; summary of a longer piece of writing or work
6	inevitable _____	f	a plan; a general set of ideas or plans that has been officially agreed on by people in authority and which is used as a basis for making decisions
7	asset _____	g	common, prevailing, current
8	policy _____	h	definite, unavoidable
9	accounting firm _____	i	the act or process of joining two things or ideas so that they become connected in some way

Cloze exercise: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Listen to this section of the lecture and fill in the missing words.

You _____ equity in the ship as the ship is being built and _____ if the money which you get from a bank - that means that the _____ does not necessarily know that, that it is not your money, I mean will know it, but they don't care.

... then the final _____ ceremony and the final check is paid, and then you're the owner _____ perhaps your lending bank has given you _____ percent of the money. You're not really the owner, you're in fact the _____ owner of the hypothec rather than the real owner. And not only that, you know of course, that the bank can take _____ from you if you do not pay your installments and your interest _____, which may _____ depending on where you have your loan.

Comprehension: Legal aspects of ship operations and ship ownership
Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

COMPREHENSION QUESTIONS

1 What does the abbreviation IACS stand for?

_____

2 From the Flag State point of view the most important certificate is the certificate of registry. Why?

_____

_____

_____

3 Why are the certificates by the builder and the classification societies so important to the insurance companies?

_____

_____

_____

4 A student asked: “What are the requirements of a national maritime administration?” What did Professor Gold answer?

_____

_____

_____

_____

5 What is flag preference?

_____

_____

_____

True/false: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

*Please answer the following questions by choosing **T** (true) or **F** (false). Cross out the incorrect answer.*

1	Even if there is a clause in the contract concerning what will happen if there is financial instability, it will give you limited protection.	T/F
2	If you are the flag state, your ship has to be built only according to international requirements.	T/F
3	Professor Gold's advice is to use one of the traditional classification societies which belong to IACS.	T/F
4	There is no great variation in the world as to who can own a ship.	T/F
5	There is a saying in maritime law that "the flag follows the law."	T/F
6	Professor Gold says that shipping has become a very international business from a legal point of view.	T/F
7	Flag preference is used in few South American countries.	T/F
8	Saudi Arabia has no flag preference.	T/F
9	Flag preference is a political policy not a commercial policy.	T/F
10	A temporary registry is not possible.	T/F

Collocations: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

Write the missing verb or phrasal verb on the empty line to match the noun or adjective. Choose a verb or phrasal verb from the list below. You can use a verb more than once.

lay	go	make	be	give
go into		issue	meet	

1 _____ bankrupt

2 _____ sure

3 _____ a certificate

4 _____ inquiries

5 _____ protection

6 _____ in the picture

7 _____ the keel

8 _____ on strike

9 _____ arrangements

10 _____ a business

11 _____ a specification

12 _____ an application

Scrambled sentences: Legal aspects of ship operations and ship ownership

Based on: *Ownership II* delivered at WMU by Professor Edgar Gold (II)

What is Port State Control?

Reorder the scrambled sentences below by numbering them. The first sentence in the passage starts with the words:

Port State Control is a mechanism for ...

_____ A who live and work on

_____ B by international regulations. This will

_____ C safety, living conditions and

_____ D mean that unscrupulous operators will gradually be

_____ E at sea improved. Merchant ships will find that

_____ F Port State Control has provided a basis

_____ G who do not abide

_____ H for other areas of the world, including

_____ I ensuring that the standards of

_____ J board ship, are maintained. There

_____ K eliminated and life

_____ L financial circumstances of most of those

_____ M are now proper inspection procedures and sanctions against those

_____ N Memorandum of Understanding on

_____ O operate their own systems.

_____ P they will be subject

_____ Q Asia and Latin America, to

_____ R to inspection in most countries of the world. The

Prepositions: From *Fairplay* Maritime Magazine 29 February 1996

Complete the sentences below by using a preposition.

Dumping substandard ships _____ the Caribbean market will soon become a thing of the past. _____ years of campaigning to improve the level of maritime safety _____ the region, 20 Caribbean states and territories signed a Memorandum _____ Understanding _____ port state control this month.

Director _____ the IMO's safety division and representative _____ the signing, Fernando Plaza, makes it clear that, fundamentally, it is the flag state's duty to improve or remove substandard ships _____ its fleet. But, he stresses, "It is the joint responsibility _____ ... all those involved _____ the day-to-day operation _____ ships to see that they conform _____ the internationally agreed standards, are well run, well maintained, safe and pollution free. The continuing high risk _____ shipping casualties is not primarily determined _____ the absence _____ adequate international rules but rather _____ the laxity _____ their implementation and enforcement." Plaza says that the new MOU will address deficiencies, "making life a burden _____ substandard shipping."

The initiative to establish a Caribbean MOU originated _____ the region itself. Recognising there was a growing number _____ cargo losses and sinkings, Commander Curtis Roach, director of maritime services, Trinidad & Tobago, went _____ Grenada and St Vincent _____ 1992 to make a provisional agreement _____ the port authorities to strengthen ship inspections. Once this had taken effect, Valerie Brown, director _____ maritime affairs, Barbados, approached the IMO _____ a view _____ setting up a regional port state control _____ the Caribbean. She was soon elected as chairperson _____ the preparatory working sessions and according _____ Plaza was, "very active _____ the formulation _____ the MOU." Her direct involvement led _____ the permanent secretariat being located _____Barbados.

Principles of management

Match the sentence starters on the left with the rest of the sentence on the right.

	Sentence Starter		Sentence Ending
1	An overstaffed organisation is not only inherently inefficient,		ahead but difficult to look further than you can see.
2	Company effectiveness is also reduced due		excess of a year, although this varies considerably depending on the type of industry concerned and the way it operates.
3	It is wise to look		with commonly experienced problems so that alternative action can be taken quickly if necessary.
4	... many businesses do not have any significant forward plans but are content to carry		but it also needs more middle management and more organising.
5	Long-range planning is generally considered as periods in		in mind their own experiences.
6	In most cases of short-range planning, contingency plans can be laid to cope		with the plan over the period of its life.
7	If you do not have guidance with		mercy of the market who do not need much capital investment - one year or so.
8	Performance must be measured and compared		on business virtually on a day-to day basis.
9	An example of corporate planning time scales is trading concerns at the		on forecasts.
10	Planners must critically examine each forecast or source of information, and bear		to the imbalance between internal and external focus.

11	Planners often rely very much		regard to what might happen in the future, planning may be considered as guess-work.

Scrambled sentences: Principles of Management

Reorder the scrambled sentences below by numbering them. The first sentence in the passage starts with the words:

There needs to be an ...

_____ A that the objective is clear, understood and has been

_____ B which everybody can carry in their minds and which everybody can understand), it

_____ C an iterative process to ensure

_____ D of involvement throughout the whole organisation. Even

_____ E objective I really do mean a single sentence

_____ F away constantly at the sort of multiple objectives which

_____ G when a clear objective has been achieved (and by a clear

_____ H is necessary to ensure that this is known, understood and accepted at

_____ I one reaches an absolutely clear message of a mission and role.

_____ J every level of the organisation. The achievement

_____ K achieved with a large amount

_____ L of such simplicity and clarity is not easy. It means shaving

_____ M we normally like to set ourselves, until