

# PILOTING THE MarTEL STANDARDS

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## **Abstract**

The MarTEL projects (MarTEL and MarTEL Plus) aim at creating a series of innovative Maritime English language tests and learning materials. The MarTEL Project created the first international Maritime English standards for Cadets, Deck and Engineering Officers, and Senior Deck and Engineering Officers and also for Port Officials in the Merchant Navy. The MarTEL project's aims at widening the user group of the existing e-learning platform by providing a series of tests and learning materials. The projects are supported by the European Union through its Leonardo da Vinci programme.

The MarTEL Phase 1 test, targeting the cadet level for assessing their English has already been through the piloting period. This report introduces this test, its contents (Structure, Reading, Listening, Speaking, Writing test sections), and the marking scheme of the MarTEL Phase 1 Test. We present the feedbacks from the pilot study and make several specific recommendations to improve the existing version of the test. Also, based on the feedback from the pilot study, we make some recommendations on the marking scheme to improve the validity and reliability of Phase 1 MarTel test.

*Keywords: Maritime English, Assessment, Maritime English Testing, MarTEL*

## **1. Introduction**

Mackay and Mountford (1978) emphasized the need of English for international communication. The language of the sea is English; thus, ESP courses are designed for seafarers who must communicate without error with other sea personnel. The MarTEL Phase 1 Test aims to assess the English language proficiency of those wishing to enter maritime training institutions as officer cadets. It is designed to test general English, and is set in a maritime context. However, because test takers will, at this stage in their career, have had little or no experience of working at sea, knowledge of vocation-specific vocabulary is not required. Where such vocabulary is used, the test taker will be able to deduce the meaning through the context of the question.

The test is designed for learners who have had the underpinning knowledge of a nationally

recognised high school diploma or equivalent, and is designed for test takers who possess an intermediate level of English.

The test consists of five sections:

<i>Structure:</i>	One part, 20 questions, 20 minutes, 20% of the total score.
<i>Reading:</i>	Two parts, 10 questions, 30 minutes, 20% of the total score.
<i>Listening:</i>	Two parts, 10 questions, 20 minutes, 20% of the total score.
<i>Speaking:</i>	Three parts, 3 questions, 15 minutes, 20% of the total score.
<i>Writing:</i>	One part, 1 question, 30 minutes, 20% of the total score.

The MarTEL Phase 1 test responds to the International Maritime Organisation's (IMO) regulations.

## **2. Developing the questions and structure**

The MarTEL Phase 1 Test is computer based. It is executed in one sitting and has a total duration of approximately two hours. While taking the test, it is possible to go back and forth through the questions of each part of a section, but once a part has been completed and submitted, it is not possible to return. The test taker can choose which section to start with, but a section cannot be quitted until all of its parts are submitted. No section may be re-visited. Test takers are advised to be sure of their answers before moving on to another part.

## **3. Structure**

### **3.1 Introduction**

English grammatical structures are tested in the MarTEL Phase 1 Test. Elder and Davies (2001) classified grammar testing into explicit testing and implicit testing. Explicit testing refers to a separate component in which grammar is directly assessed while an indirect measurement of grammar is where it is integrated within a test of language skills, for example, grammatical accuracy as one of the marking criteria in a writing task. Alderson (1993) reports considerable support from the profession for including a test of lexis and structure, which agrees with Elder and Davies (2001) on that explicit grammar testing in separate subtests is favoured at entry level. In MarTel Phase 1 Test, both explicit and implicit grammar will be tested. Thus a deliberate attempt was made to develop a separate grammar component and to differentiate this construct from that of the four skills (reading, listening, writing, and speaking) in the MarTel test. As we can see, grammar forms the core of language proficiency, and solid knowledge of the grammatical structures of English is needed for cadets to express themselves clearly. Grammar plays an important part in the four skills assessed in other sections of the MarTEL Phase 1 Test.

### **3.2 Content of the structure section**

The section consists of 20 multiple choice questions. For each question, the test taker must complete the sentence by choosing from the options provided. In this section, the test taker must apply logic to choose the correct word to fit the sentence, and deduce the correct form of the word. One question appears at a time. The test taker has 20 minutes to complete this part, and may go back and forth through the questions using the 'back' and 'next' buttons on the screen.

## **4. Reading**

### **4.1 Introduction**

During the course of their studies at their maritime academy, cadets will need to read English language texts on a range of nautical topics. Professional mariners need to be able to read and understand a range of texts relating to their work, such as reports and manuals. These texts will contain specialised maritime vocabulary, which the cadets will learn in their Maritime English lessons at their academy. According to Laufer (1997), readers must comprehend a certain percentage, which is 95% of a text to infer meaning of unknown words. The MarTEL Phase 1 reading section assesses the ability of the test taker to comprehend two straightforward texts, which contain general English vocabulary. These texts are drawn from a variety of sources. There are with five multiple choice questions for each text.

### **4.2 Content of the section**

The reading section lasts for 30 minutes. Test takers have 15 minutes to read each text and answer the five questions. The text will remain on the screen for test takers to refer to as they answer the questions, which appear one after another. Test takers can cycle through the questions to check their answers by clicking 'back' and 'next'.

## **5. Listening**

### **5.1 Introduction**

The importance of listening for second or foreign language acquisition has been underlined by authors such as Feyten (1991). "Comprehensive listening", "critical listening" are two of the very important described five kinds of listening by Wolvin and Coakley (1982). Comprehensive listening helps a listener to understand a message; critical listening allows a listener to evaluate and then to accept or reject a message. These two kinds of listening are vital for maritime workers and there is no place for ambiguity in the maritime working environment. Therefore it is vital to have the ability to comprehend the commands and given tasks precisely. Lack of clarity in communication may result in safety failures and jeopardise the safety of the vessel and the crew. Listening is an integral part of effective communication and execution of tasks on board.

### **5.2 Content of the listening section**

The listening section consists of two independent parts. Each part contains a recording, which is around one minute long. There are five multiple choice questions for each part. Part one of the listening section is a recording of a dialogue between two or more people.

Part two is a recorded monologue on a maritime related topic, such as a lecture. In keeping with the rest of the test, although the recordings are on a maritime topic, vocation specific vocabulary is not included. All information needed to answer the questions is in the recording itself. No prior knowledge of the subject matter is required.

## **6. Speaking**

### **6.1 Introduction**

Speaking is one of the four macro skills to be developed as means of effective communication in any language, particularly when speakers are not using their mother tongue (Boonkit, 2010). On a vessel crewed by people from many different languages, major communication problems can occur if people do not understand each other's speech. Officers must be able to communicate not only in ship-to-ship, ship-to-shore, bridge-to-engine room, but also during daily tasks on board or ashore. Many work related situations necessitate vocation specific vocabulary and structures, such as Standard Marine Communication Phrases (SMCP). SMCP is normally taught on dedicated maritime English courses and are tested in MarTEL Phase 2. The speaking section in MarTEL Phase 1 is designed to evaluate test takers' competence in general spoken English.

### **6.2 Content of the speaking section**

The MarTEL Phase 1 speaking section requires non-interactive speaking, which is recorded by the computer and sent away for assessment. The section consists of three independent parts, which are designed to provide three different types of input for the test taker to respond to.

## **7. Writing**

### **7.1 Introduction**

Professional mariners need to be able to present information in a clear, organised, and systematic way. Thus, the accurate use of syntax (sentence structure) and the appropriate use of transition signals are essential in guiding the reader effectively. A mariner's ability to communicate well in writing is of major importance. MarTEL Phase 1 assesses general English writing skills.

### **7.2 Content of the writing section**

The MarTEL Phase 1 writing section consists of one integrated reading / writing task. In this section, test takers must write an essay in response to a text, or a reply to a letter, and support their answer with reasons and examples. The answer is typed into the on-line testing software. In their written response, test takers must refer to the question and text, and give reasons for their answer. This tests their ability to identify the main points of an argument, and give reasons for their opinions. The answer is marked on, communicative quality, lexical accuracy and range, grammatical accuracy and range, reference to the task, and the effective organisation of the answer.

## 8. Summary of the MarTEL Phase 1 test

	STRUCTURE	LISTENING	READING	SPEAKING	WRITING
<b>Suggested topics</b>	Topics are generally related to issues associated with daily routines, free-time activities, environmental and socio-political issues.				
<b>Tasks</b>	No. of questions: 20 20. min duration	No. of listening tasks: 2 Number of Qs per task: 5 10 min. duration per task	No. of reading tasks: 2 Number of Qs per task: 5 15 min. duration per task	No. of speaking tasks: 3 Variable duration (C. 15 min)	No. of writing tasks: 1 30 min. duration
<b>Skills required</b>	<ul style="list-style-type: none"> <li>Applying logic to choose the correct word to fit the sentence</li> <li>Deducing the correct form of words based on the tense of the sentence</li> </ul>	<ul style="list-style-type: none"> <li>Deducing meaning from context</li> <li>Following the main points of a discussion</li> <li>Following speech in an everyday conversation</li> <li>Understanding straightforward factual information</li> <li>Identifying both general messages and specific details</li> <li>Following a simple lecture or a talk on a maritime related matter</li> <li>Understanding simple technical information</li> <li>Understand the information content of simple broadcast audio material about some simple maritime related topics</li> </ul>	<ul style="list-style-type: none"> <li>Finding and understanding general information in straightforward material</li> <li>Searching one long or several short texts to locate specific information</li> <li>Recognising significant points in straightforward texts</li> <li>Identifying the main points in clearly written argumentative texts.</li> <li>Recognising the general line of argument in a text but not necessarily in detail.</li> <li>Understanding a simple description of events</li> <li>Understanding clearly written straightforward instructions for a piece of equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Making comparisons</li> <li>Describing experiences</li> <li>Describing events</li> <li>Describing hopes and ambitions</li> <li>Giving reasons and explanations for opinions</li> <li>Giving reasons and opinions for plans</li> <li>Summarising text and describing personal reaction</li> </ul>	<ul style="list-style-type: none"> <li>Passing on routine factual information</li> <li>Stating reasons for actions.</li> <li>Describing experiences, feelings, and events in detail.</li> <li>Describing basic details of unpredictable occurrences, e.g., an accident.</li> <li>Describing hopes and ambitions.</li> <li>Taking messages describing enquiries, problems, etc.</li> <li>Summarising a text and describing personal reaction.</li> <li>Briefly giving reasons and explanations for opinions, plans, and actions.</li> </ul>
<b>Task types</b>	Multiple choice Questions	Multiple choice Questions	Multiple choice Questions	Non-interactive speaking (response to a specific task, integrated reading & speaking)	Writing an essay-type piece (response to a specific question) Writing a letter (response)
<b>Marking Criteria</b>	<b>Criterion Referencing and Percentage Marks</b> <ul style="list-style-type: none"> <li>There is a 60% minimum pass mark for each skill. An overall mark of <b>60%</b> is required for the final <b>pass grade</b>.</li> </ul>				
<b>Rubrics</b>	Instructions for the test are written, spoken, or both.				

## 9. Developing Marking Scheme of the Test

### 9.1 Draft Marking Scheme for Writing and Speaking Tasks

‘To report on proficiency, the assessment should not be primarily concerned with any one particular performance, but should rather seek to judge the generalisable competences evidenced by that performance.’ (CEFR)

‘Subjectively marked tests need to be pretested to see whether the items elicit the intended sample of language; whether the marking system is usable; and whether the examiners are able to mark consistently. It is usually impossible to try out such tests on large numbers because of the time needed to mark the scripts or run the interviews, but students with a wide range of backgrounds and levels should be tested in order to ensure that the sample of language produced contains most of the features which will be found in the examinations themselves. Once the papers or interviews have been administered, there should be trial marking sessions to see whether the test item prompts have produced the intended kinds of responses, and whether the marking guidelines and criteria are working satisfactorily. These trial marking sessions should follow the general pattern described in chapter 6 and should lead to amendments to the item prompts, the marking guidelines, and criteria.’ (Alderson et al, 1995).

### 9.2. Calculating the score

The writing section is marked in the analytic way, where marks are given for performance on individual standards. According to Huot (1990), an analytic or “profile” type of scale, which assesses each composition according to multiple dimensions as opposed to a holistic scale giving only one score. It has proved to be more reliable than other types of scales (e.g. holistic scoring, primary trait scoring) (Jacobs et al., 1981) and provides useful diagnostic information not found in other methods (Jacobs et al., 1981; Raimes, 1990; Hamp-Lyons, 1991). Select the mark (0-5) for each construct being assessed. Add these together and multiply by five. This will give the percentage grade. For example:

Structure and organisation	3
Communicative quality	4
Lexical accuracy and range	4
Grammatical accuracy and range	3
<b>Total mark</b>	<b>14</b>
<b>Percentage grade</b>	<b>70%</b>

*Note: Draft marking scheme presented here is based on the Edexcel IGCSE marking scheme.*

## 10. The Evaluation of the Test

A MarTEL test guide has been produced for test writers and markers who must construct language tests and also evaluate, or use the results of language tests. These include a number of steps below, as well as a number of questionnaires.

- (1) Drawing up specifications of the test
- (2) Writing individual test items, their assembly into whole tests, and editing;
- (3) Piloting the test and analysing the draft test;
- (4) Recording test scorers of different test takers
- (5) Examining the reliability and consistency of the test;
- (6) Setting standards of performance and reporting results;
- (7) Testing the appropriateness and the validity of the test;
- (8) Writing reports of performance on the test as a whole for setting test standards;
- (9) Improving the test using feedback and research;
- (10) Preparing a checklist of the main issues for future tests.

## **11. Comments of the Students**

Alderson (1995) mentions that gathering feedback from test takers is one of the very important aspects of test monitoring.

*'The candidate can provide test developers with very valuable insights: what they think about the test items, test methods, the clarity of instructions, the timing of the various sections, the relevance of the content in the light of their learning experiences or their purposes for learning the language, the relationship between how they perceive their language abilities and their performance on the test in question, and so on.'*

Student comments have been obtained through questionnaires. This feedback is useful for making any improvements to the MarTEL Phase tests.

## **12. Conclusion of Piloting MarTEL Phase 1 Test**

The quality of the students is one of the important issues in any teaching and learning system. Good standards for exam questions and the marking scheme are very important to maintain the high level of quality of the test material and also the standard of marking. Therefore, the performance of instructors to maintain a standard of good marking is very important. For better achievement and good output from students in the exam, the validity and reliability of exam questions must be ensured. From the outcome of the pilot test, it was concluded that some of these factors can differ among different instructors in terms of their marking where subjective views could differ.

The speaking and writing tests consider structure and organisation, communicative quality, lexical accuracy and range, and grammatical accuracy and range.

It is also important that the instructors need to be assessed and evaluated during their teaching process to ensure of the quality and the standard of their performance as well.

Since the test is taken on-line, there may be a wide range of potential problems with candidates' answers which is not apparent in their answer of piloting the MarTEL Phase 1 test. For example, due to a candidates' lack of language skill may be unable to express their ideas clearly or because of a lack of knowledge or their interpretation of a question can be markedly different from that of the expectation of the test setter. A candidate's lack of knowledge can lead to answers that are difficult to comprehend, and excessively lengthy answers can mask this lack of knowledge. Spelling and typing errors may occur frequently,

making the recognition of phrases difficult. Candidates sometimes use their own abbreviations, which often leads to incomprehensible phrases. Therefore, it is important for several examiners to agree questions, specimen solutions, and marking schemes. This was done prior to launching the MarTEL Phase 1 pilot test.

### **13. Recommendations**

1. Even though marking is undertaken and managed through the central MarTEL examination board, it is important that student's tests are marked by someone other than the course tutor.
2. To avoid ambiguity, two tutors taking different views on marking, should mark a set of scripts jointly.
3. A second marker must make an independent judgment on the difficulty, length and anticipated average score. In case of disagreement, both the markers should work together to produce an acceptable version.
4. A feedback on student's work may be given to students in their grading reports.
5. The marked scripts should be moderated by MarTEL project partners and advisors to ensure reliability and to establish marking standards.
6. Skimming through several answers of the same question should take place to get a sense of the range of answers/standards and a comparative perspective before starting to award grades.

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