

Mirjana Borucinsky

*University of Rijeka, Croatia*

Jana Kegalj

*University of Rijeka, Croatia*

## **COLLOCATIONS IN MARINE ENGINEERING ENGLISH**

### **Abstract**

Collocations are very frequent in the English language (Hill, 2000), and they are probably the most common and most representative of English multi-word expressions (Lewis, 2000). Furthermore, as a subset of formulaic sequences, collocations are considered to be a central aspect of communicative competence (Nation, 2001). Hence, the importance of teaching collocations in General English (GE) as well as in English for Specific Purposes (ESP) is undeniable. Understanding and determining the relevant collocations and their mastery are of "utmost importance to a ME instructor" (Cole et al., 2007, p. 137), and collocations are one of the most productive ways of enriching vocabulary and terminology in modern ME.

Vişan & Georgescu (2011) have undertaken a relevant study on collocations and "collocational competence" on board ships, including mostly nautical terminology. However, no substantial work on collocations in Marine Engineering English as a sub-register of ME has been carried out. Hence, this paper tries to determine the most important collocations in Marine Engineering English, based on a small corpus of collected e-mails. After determining the most relevant collocations, we suggest how to implement these in the language classroom and how to improve the collocational competence of marine engineering students.

**Keywords:** collocations, collocational competence, Marine Engineering English, corpus-based study

## 1. Introduction

Collocations are specific multi-word units (or multi-word expressions) that have received "only marginal attention in most mainstream linguistic paradigms" (Bartsch, 2004, p. 40). Due to their idiosyncratic nature, they had been of little interest to theories of the language system. However, it seems that more recently, and especially as a result of their diversity and idiosyncratic nature, collocations are becoming a much debated topic in theories that study language usage, in applied linguistics (lexical and translation studies), and language teaching studies.

Hill (2000) has shown that collocations are very frequent in the English language, and they are, according to Lewis (2000), probably the most common and most representative of English multi-word expressions. In recent theories, collocations, as a subset of formulaic sequences, are considered to be a central aspect of communicative competence (Nation, 2001) while the importance of teaching collocations in General English (GE) and English for Specific Purposes (ESP) has also been recognized (e.g., Channel, 1981; Gledhill, 2000).

Cole et al. (2007) argue that a competent instructor of Maritime English (ME) has to possess knowledge of the linguistic features of the English language appropriate to maritime discourse and communication. Among these features are collocations, especially of the verb + object noun type, which are, according to the authors, one of the most productive ways of enriching vocabulary and terminology in modern ME. Hence, understanding and determining the relevant collocations and their mastery are of "utmost importance to a ME instructor" (Cole et al., 2007, p. 137).

Vişan & Georgescu (2011) have undertaken a relevant study of collocations and "collocational competence"<sup>1</sup> on board ships, including mainly nautical terminology. However, no substantial work on collocations in Marine Engineering English, as a sub-register of ME, has been carried out. Hence, this paper tries to determine the most important (verb + noun, adjective + noun, noun + noun<sup>2</sup>) collocations for Marine Engineering correspondence, based on a small corpus of collected e-mails.

After determining the most relevant collocations, we suggest classroom activities which will help students understand and master those collocations which are important for written communication in Marine Engineering.

## 2. Theoretical background

Defining collocations has proven to be a challenging task for linguists, as there exist as many definitions as there are many theories or approaches. Thus, we can analyse and define collocations from the linguistic (or more specifically from the morpho-syntactic, semantic,

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1 The term "collocational competence" was coined by Hill (1999).

2 The original version of the manuscript included noun + noun collocations as well. However, in the process of reviewing the manuscript, we have noticed that distinguishing between collocations on the one hand and nominal compounds and free syntactic combinations on the other is very complex and exceeds the scope of the present paper, but most certainly merits further investigation.

lexical, cognitive, lexicographic) point of view, from the statistical point of view, and the perspective of natural language processing.

Within the linguistic paradigm there are two main approaches to understanding collocations, which can be loosely termed as the *German* and the *British* approach. The most prominent representative of the former is Hausmann (1985), whereas the advocates of the latter are Firth (1957), Halliday (1961), and Sinclair (1991), among others. The latter approach arises within British contextualism, a term reflecting the context-dependent nature of language. Firth (1957) classified collocations as general or usual collocations, and more restricted technical or personal collocations. According to Lehr (1996), Firth's (1957) understanding of collocation is rather broad and implies any co-occurrence of lexical units at syntagmatic level. Firth's notion of collocations has been further elaborated by his successors, the so called Neo-Firthians (e.g., Halliday, Sinclair). Halliday (1961, p. 276) distinguishes between a grammatical and lexical level of collocations and defines collocation as

"the syntagmatic association of lexical items, quantifiable, textually, as the probability that there will occur at  $n$  removes (a distance of  $n$  lexical items) from an item  $x$ , the items  $a, b, c \dots$  Any given item thus enters into a range of collocation, the items with which it is collocated being ranged from more to less probable."

The development of corpus linguistics and corpus linguistics tools, which enabled linguists to analyse vast amounts of information, had a great impact on the research of collocations. Hence, findings and conclusions were primarily based on the frequency of co-occurrence and statistical analysis. The greatest disadvantage of this approach is that every frequent co-occurrence can be considered a collocation and this does not necessarily take into account some typical collocations.

In addition to frequency of co-occurrence (or recurrence of word combinations), definitions of collocations are commonly built around the following criteria: multilexicality, idomaticity, constrained lexical selection, semantic transparency or opacity, syntactic relations between constituents, arbitrariness, fixedness, stability, and lexicalized reproduction and storage in the mental lexicon.

Attempts to generate definitions of collocations have been made by several linguists, for instance Clear (1993), and Hunston (2002). However, a very interesting view is offered by Lewis & Hill (1998) who see collocations as predictable combinations of words. Their predictability is one of the key features that help us identify word combinations as collocations. Nation (2001) outlines ten different scalar criteria for identifying collocations. These are: frequency of co-occurrence, adjacency, grammatical connectedness, grammatical structure, grammatical uniqueness, grammatical fossilization, collocational specialization, lexical fossilization, semantic opaqueness, and uniqueness of meaning.

As can be seen from this brief review, there is much debate in linguistics on what collocations are and how to distinguish them from free combinations, compounds, idioms, and other multi-word units. As Schmitt & Carter (2004) point out, formulaic sequences or multi-word lexical units seem to exist in so many forms that it is difficult to develop a comprehensive definition of the phenomenon. It is this lack of clear definition that still remains one of the foremost problems in the area.

A simple definition of the concept of collocation is offered by Henriksen (2013, p. 29):

"Collocations are frequently recurring two-to-three word syntagmatic units which can include both lexical and grammatical words, e.g., verb + noun (*pay tribute*), adjective + noun (*hot spice*), preposition + noun (*on guard*) and adjective + preposition (*immune to*)".

In addition, it can be said that collocations are a type of formulaic sequences, and some are grammatical<sup>3</sup>, while others are lexical (Gyllstad, 2007). They may differ in the degree of fixedness, transparency, and arbitrariness. Henriksen (2013, p. 33) states that we can distinguish between different types of collocations using the "central variable" or the degree of semantic transparency. Hence, "if the learner knows the meaning of the two lexical items included, the collocation *major catastrophe* is fully transparent, and can therefore be understood through a process of decoding the two lexical elements in their literal sense".

Although it is difficult to distinguish between idioms and collocations, we find that in specialized discourse (especially in Marine Engineering) it is more difficult to distinguish collocations from compounds. Both are a feature of specialized (maritime) discourse and differ in the degree of fixedness (Pritchard, 2015). However, it is very difficult to determine the degree at which a multi-word lexical unit is no longer considered a free combination or a compound and when it becomes a collocation. Since this is a topic that needs further consideration, it will not be dealt with in this paper.

In conclusion it can be stated that various criteria can be used for identifying collocations and for distinguishing them from other multi-word lexical units. Since the approach adopted in this paper is corpus-based, we believe that the frequency of co-occurrence is one of the key criteria for determining whether a certain combination of words will be classified as a collocation. The assumption behind this statement is that if a sequence is frequent in a corpus, this indicates that it is conventionalised by the speech community, at least to some extent (Schmitt & Carter, 2004). We understand language as context-dependent production of structures and analyse it in specific situations. Finally, we believe that the frequency of occurrence is a more objective criterion than relying on the linguist's/native speaker's intuition when deciding what is to be considered a collocation.

### 3. Collocations and language teaching

Many linguists (e.g., Boers & Lindstromberg, 2009; Durrant, 2008) agree that collocational competence is very important for language production and reception. Collocations, as ready-made semantic sets or formulae drawn from native speakers' minds without much effort, represent associations between words. According to Construction Grammar (Goldberg, 1995), the knowledge of such language structures, used repetitively in similar situations, is defined as the knowledge of the language. Or, as Ellis & O'Donnell (2014, p. 72) put it:

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3 Grammatical collocation is commonly referred to as colligation.

"Constructions as form-meaning/function mappings are the units of language, hence language acquisition involves inducing these associations from experience of language usage."

The more frequent a particular construction (e.g., *to complete a checklist*) is, the more it becomes associated in the learner's mind.

In foreign language teaching, these routine constructions are offered to beginners in the form of situational phrases, chunks or units, to help them in speaking interaction. As prefabricated linguistic sets, they facilitate communication for learners, especially beginners, and provide them with time for planning further communication. As native speakers largely make use of collocations in their everyday interaction, by using such structures EFL learners tend to sound more natural, exhibiting a more native-like command of the foreign language. By mastering collocations of a given language, by automating their use in recurring situations, the foreign language learner can create structures acceptable to native speakers, which is one of the main reasons why high-frequency collocations represent good targets for learning (Durrant, 2008). Furthermore, using collocations (as part of formulaic sequences) in speech and writing promotes language fluency.

Collocations are thus specific multi-word units or formulaic sequences which form an important part of students' communicative competence and are generally believed to be one of the difficult areas for L2 learners. This is why we consider it important to determine the specific collocations for each register (in this case Marine Engineering English), to analyse them, to master them, and finally to instruct them explicitly. Explicit teaching of collocations can help students develop their productive knowledge, and learning collocations is likely to have a positive effect on students' motivation as their communicative competence will increase with their collocational competence (Hill, 2000).

Shin & Nation (2012) state that collocations help learner's language use, both with the development of fluency and native-like selection. They also used frequency as a criterion for determining the most relevant collocations in spoken English for second language learners.

Furthermore, the importance of teaching collocations is attested in the Common European Framework of Reference for Languages (CEFR; Council of Europe, 2001). In this document collocations are described as belonging to learners' lexical competence and considered fixed expressions (e.g., *to make a speech/mistake*), which are used and learnt as wholes.

### **3.1. Collocations in Maritime English**

When it comes to collocations in ME, we find the study carried out by Vişan & Georgescu (2011, p. 321) to be relevant, and in their paper they conclude that:

"Collocational competence is an essential prerequisite for the overall mastery of Maritime English, perhaps one of the highest levels of linguistic proficiency that future maritime officers can attain."

They also point out that maritime collocations have generally not been integrated into the teaching materials and as a consequence have not been given serious importance in the ME

classroom. They further state that no research has been carried out so far on how collocations are used by ME learners.

As already recognized by Halliday (1961), collocations fall between lexis and grammar. This is in line with the prevailing view that ME competence is to be described as an interactional process between lexis and grammar. By focusing on this interaction and by giving more attention to collocations, we can develop and enhance language learners' performance in general (Vişan & Georgescu, 2011).

The advocates of the lexical approach, which is adopted in this paper, do not agree on how collocations should be selected and taught as some of them (e.g., Sinclair, 1991) believe that the frequency (i.e., the most common collocations) is the main criterion for determining collocations while others (e.g., Hill, 2000; Lewis, 2000) recommend that teachers should trust their own judgement in deciding which collocations are most important for their students. The latter seems reasonable, as each student or group of students has specific needs and this is even truer for ESP or specific registers such as ME or Marine Engineering English.

### **3.2. Collocations in Marine Engineering textbooks**

To obtain a general idea on whether collocations are included in the teaching materials for marine engineers, we have studied the following textbooks and one interactive program (*MarEng Learning Tool*):

1. Blakey, T. N. (1987). *English for Maritime Studies* (2<sup>nd</sup> ed.). London: Prentice-Hall International.
2. Buczkowska, W. (2003). *English across Marine Engineering*. Gdansk: Drukarnia Wydawnictwa Diecezji Pelplinskiej "Bernardinum".
3. Buczkowska, W. (2013). *MarEngine English Underway*. Vlissingen: Dokmar Maritime Publishers.
4. Cengiz, D., & İlham, B. (2004). *English for Marine Engineering Studies*. Istanbul: Istanbul University.
5. Fabe, D. (1998). *English for Marine Engineers*. Portorož: Fakulteta za pomorstvo in promet.
6. Spinčić, A. (2002). *A Textbook for Marine Engineers I*. Rijeka: Pomorski fakultet.
7. Spinčić A., & Luzer J. (1999). *English in Marine Engineering Communication*. Rijeka: Adamić.
8. Spinčić, A., & Pritchard, B. (2009). *A Texbook for Marine Engineers II*. Rijeka: Pomorski fakultet.
9. Vaudo, P. (1992). *English for Mariner's Practice and Use*. Bologna: Zanichelli.
10. *MarEng Learning Tool, Leonardo Da Vinci Education and Culture*. Retrieved from: [http://mkkdok.utu.fi/mat/mareng\\_old/index.html](http://mkkdok.utu.fi/mat/mareng_old/index.html) (18 September, 2015).

Our hypothesis was that collocations are not strongly represented in the aforementioned textbooks; i.e., that there is only a small number of activities for improving students' collocational competence. This has proven to be correct and what follows is a short summary of our conclusions.

Collocations are mostly represented in Buczkowska (2003; 2013). We consider illustrating or highlighting collocations in glossaries or vocabulary explanation sections of textbooks to be good practice since presenting words in context is crucial for understanding and producing new structures.

In Buczkowska (2013) we also find vocabulary exercises of the 'fill-in-the-gaps' type or 'choose-the-right-verb' type (e.g., *open/close the suction valve, open close the discharge valve, shut off/ start the priming unit*, etc.).

Furthermore, Buczkowska (2003) provides exercises on colligation (or grammatical collocation), such as *to be in command of sth, to be in charge of sth, to take responsibilities for*, etc. The author also provides productive exercises in which students are required to write their own sentences based on the new structures that they have mastered within a given unit. Other exercises involving collocations are of the 'matching type' (i.e., match the words from column A to words from column B), in which students are asked to find the collocates of a given word (e.g., *temperature, pressure, efficiency – increases, grows, rises/drop, falls, decreases; start/check/open compressors*) (Buczkowska, 2003). Matching exercises are also commonly found in Cengiz & İlhan (2004) and Spinčić (2002). Similar matching exercises are found in Fabe (1998) as well as Spinčić & Pritchard (2009) (e.g., *large end bearing, holding down bolts, cylinder cover studs*, etc.). Furthermore, in both of the latter textbooks the verbs *carry* and *provide* are highlighted as very frequent verbs in marine engineering and their collocates are listed (Fabe, 1998). Matching exercises are also commonly found in MarEng (e.g., *practical training, competency certificate, qualified engineer*).

We have found no evidence of collocations in Blakey (1987) and Vaudo (1992). Spinčić (2002) focuses on nominal compounds, which should be distinguished from collocations, even though this is not always a simple task.

As can be seen from this short summary, there is evidence that collocations are not strongly represented in textbooks for marine engineers. However, it would seem that more recent teaching resources are more collocation-sensitive, i.e., show a higher awareness of collocations. The aforementioned textbooks mainly cover matching exercises of specific collocations which have been discussed within a particular unit, but the students' productive knowledge of collocations and their collocational competence is not sufficiently developed in such a way. It is therefore our belief that more prominence should be given to collocations in Marine Engineering English. Hence, in the next section of this paper we list collocations which are relevant for marine engineering correspondence, and suggest a few types of exercises which can be used to improve students' collocational competence.

## 4. The present study: collocations in Marine Engineering correspondence

The study presented in this paper was carried out on a small corpus of collected e-mails<sup>4</sup>, consisting of 95,893 tokens. The research presented below is a pilot study into the complex phenomenon of collocations.

The lexical density ( $L_d$ ) of a corpus is the ratio of the number of lexical words (i.e., types,  $N_{lex}$ ) and the total number of words found in the corpus (i.e., tokens,  $N$ ), as illustrated below:

$$L_d = (N_{lex}/N) \times 100$$

The lexical density of the corpus used for research purposes of this paper is 63.75 %, which is considered to be a good measure of the type/token ratio. Figure 1 below illustrates how different parts of speech are represented in the corpus. As can be seen from the graph, nouns are most commonly represented in the corpus (46.43 %), followed by verbs (9.79 %), prepositions (8.73 %), and adjectives (5.26 %), which also explains why we have selected the respective verb + noun and adjective + noun collocations for further analysis<sup>5</sup>.

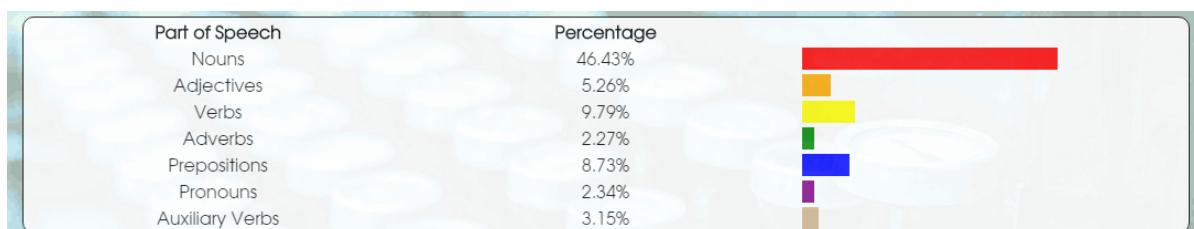


Figure 1: Parts of speech extracted from the E-mail corpus. Online Analyzer. Retrieved from <http://www.analyzemywriting.com/index.html>

A further note needs to be added as to the restrictedness of the corpus and the areas covered in the e-mails. Most of the correspondence was directed by the Chief Engineer either to the technical office or the company, and the subject mostly relates to troubles, trouble-shooting, and maintenance. In that sense, the corpus is somewhat restricted generally, but very specific and valuable for teaching vocabulary required to describe failures, malfunctions, breakdowns, incidents, etc. Although the list is far from complete, given the restrictions, this information could be combined with dictionary entries to determine the relevant collocations.

The e-mails have been converted into a .txt file and the frequencies of words were checked using the MonoConcPro corpus tool. The first step was to extract the most frequent content words in the corpus, with minimum frequency of 3 tokens, the results of which are shown in Appendix A. We have excluded common e-mail correspondence words from the frequency list - words such as *subject*, *message*, *administrator*, *regards*, *dear*, *sender*, *receiver*, *notify*, *reply*, *sent*, *received*, *attached*, *copying*, *disclosing*, *transmission*, *fleet*, company names, etc.

4 We are indebted to Prof. Josip Luzer for collecting the e-mails, and for selflessly allowing us to carry out the presented research on the corpus. The collected e-mails are written by non-native speakers of English, former students of the Faculty of Maritime Studies, today's Chief Engineers, but some replies were written by native speakers of English.

5 Collocations of the preposition + noun type are also a very interesting topic which requires further analysis.

Based on the frequency list (Appendix A), we have analysed the concordances of the most frequent words as well as their collocates, using the *Collocate Frequency Data* option. Using this tool we have extracted the following collocations, as shown in Table 1.

verb + noun	adjective + (adjective) + noun
(to) run (a) ship <sup>A</sup>	
<i>privileged<sup>B</sup> information</i>	
(to) communicate information	<i>confidential information</i>
(to) come (into) contact	<i>working order</i>
(to) give (sb) a report	<i>good practice</i>

Table 1: *Collocations extracted from the e-mail corpus*

Since the corpus is rather small, we could not use any of the collocation extraction tools or the collocate frequency data further, so we have conducted our analysis using concordance tools. We have divided the identified collocations into two groups: (1) collocations which are used in GE (Appendix B), (2) collocations used explicitly in ME correspondence (Appendix C).

As can be seen from Appendix B and Appendix C, most of the collocations that we have extracted from the corpus are of the verb + noun type, which is a finding supported by Cole et al. (2007). Hence, we can conclude that verb + noun collocations are the most common type of collocation encountered in Marine Engineering English as well.

Collocations listed in Appendix B and Appendix C represent just a small sample of relevant collocations for Marine Engineering correspondence. Due to the restricted and rather small corpus, it was not possible to carry out research that would yield all-inclusive results and help us determine all the collocations for Marine Engineering correspondence. The results are rather to be seen as an example of how to make use of authentic texts and instances of real-life communication to enrich the teaching process. This is something every teacher can do, taking into consideration the needs of his/her students.

#### 4.1. Suggestions for classroom activities

As already stated above, using authentic correspondence, the ME instructor can improve the teaching process and create classroom materials to supplement textbooks according to the needs of his/her students.

The following are ideas on how to implement the extracted collocations in the language classroom.

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A It is worth mentioning that the combination of the verb run and the noun ship is not recognized as a collocation in the *Online Oxford Collocation Dictionary* and yet this is one of the recurring combinations commonly found in ME.

B Collocations which are boldfaced are not found in the Online Oxford Collocation Dictionary.

### Activity I. Read the following e-mail and highlight verb + noun collocations.

The e-mail<sup>6</sup> is one of the real-life communications. It allows students to notice common verb + noun collocations and to raise their awareness of what collocations actually are.

Good day Mr. Smith,

*Please bear in mind that we have suffered today identical malfunction with 3-way valve (pneumatically operated by solenoid valve) same as Raphael a few days before. While in operation on routine basis to overboard discharging BHT observed very small output in comparison with recent discharge rate and made a conclusion that something is wrong with 3-way valve. To prove this observation the recirculation pipeline flange has been slackened slightly (to avoid tag damage) and found above underwater pressure.*

*Therefore, before the requisition order being sent to your attention please give us permission to remove a suspicious 3-way valve with associated pipeline to investigate where is the root cause of the malfunction (maybe some dirt underneath v/v seat?). Actually we have no spare on board of such type of valve.*

*It means that the following environmental tags have to be removed allowing the fault to be investigated:*

- 1) 0001814 DECKMA, 3-way v/v Solenoid v/v
- 2) 0031375 DECKMA, discharge o/b 3-way v/v air inlet
- 3) 0001808 DECKMA, 3-way v/v solenoid v/v
- 4) 0023317 OWS, o/b discharge pipe
- 5) 0023318 OWS, oil discharge to OBT
- 6) 0023319 OWS, discharge to BHT
- 7) 0023307 OWS, recirculation line to BHT

*Best regards,*

*C/E*

In this e-mail the students could highlight the following verb + noun collocations:

*to bear in mind; to suffer a malfunction; to make a conclusion;  
to prove the observation; to give permission; to investigate a fault, etc.*

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6 The names have been changed. The e-mail contains some grammatical mistakes, which the teacher can correct before introducing into the classroom, or alternatively, ask his/her students to correct the grammatical mistakes, depending on their proficiency.

This can be further used to discuss and check (using a dictionary of collocations or Lutzer & Spinčić, 2013) whether all the collocations that the students have highlighted are proper collocations, which leads to the second activity:

### Activity II. Correct the mistakes.

Read the following e-mail, highlight improper collocations and correct them. This activity can only be done with proficient students who have a fair understanding of collocations.

**EXAMPLE:** *to make a conclusion* —→ *to draw a conclusion*

### Activity III. Find the intruder.

This activity can be used as a post-reading activity and it encourages students to notice multi-word units (c.f., Vasiljević, 2008). The teacher provides distractors and asks students to identify which of the given words does not form collocations with the given node.

**EXAMPLE:** *FAULT*, n. *identify, cause, rectify, report, diagnose*

### Activity IV. Matching

Find verb + noun collocations. Match the words in column A to words in column B.

Column A	Column B
<i>to test</i>	<i>losses</i>
<i>to specify</i>	<i>sample</i>
<i>to incur</i>	<i>details</i>
<i>to schedule</i>	<i>a checklist</i>
<i>to complete</i>	<i>maintenance duties</i>
<i>to assist (in)</i>	<i>the inspection</i>

### Activity V. Collocation Translation.

A translation is a good activity for making students aware that collocations are language and culture specific and need not (or do not) have formal equivalents in the target language.

### Activity VI. Gap-filling exercise

These exercises are an excellent way to reinforce vocabulary as they enable students to encounter the vocabulary in context.

Good day Mr. Smith,

Please \_\_\_\_\_ in mind that we have \_\_\_\_\_ today identical malfunction with 3-way valve (pneumatically operated by solenoid valve) same as Raphael a few days before. While in operation on routine basis to overboard discharging BHT

observed very small output in comparison with recent discharge \_\_\_\_\_ and made a conclusion that something is wrong with 3-way valve. To \_\_\_\_\_ this observation the recirculation pipeline flange has been slightly (to avoid tag damage) and found above underwater pressure.

Therefore, before the requisition order being sent to your attention please give us \_\_\_\_\_ to remove a suspicious 3-way valve with associated pipeline to investigate where is the root \_\_\_\_\_ of the malfunction (maybe some dirt underneath v/v seat?). Actually we have no spare on board of such type of valve.

slackened      suffered      permission      rate      cause      bear      prove

### Activity VII. Multiple-choice exercise

Multiple-choice exercises are suitable to a wide range of instructional goals and may be used to assess all levels of learning. They are also useful for identifying student difficulties and can serve as the basis for further discussion about common errors.

Good day Mr. Smith,

Please 1\_\_\_\_\_ in mind that we have 2\_\_\_\_\_ today identical malfunction with 3-way valve (pneumatically operated by solenoid valve) same as Raphael a few days before. While in operation on 3\_\_\_\_\_ basis to overboard discharging BHT observed very small output in comparison with recent discharge rate and made a conclusion that something is wrong with 3-way valve. To prove this observation the recirculation pipeline flange has been slackened slightly (to avoid tag damage) and found above underwater pressure.

Therefore, before the requisition order being sent to your attention please 4\_\_\_\_\_ us permission to remove a suspicious 3-way valve with associated pipeline to investigate where is the root cause of the malfunction (maybe some dirt underneath v/v seat?). Actually we have no spare on board of such type of valve.

1 have/bear/keep/carry

2 suffered/endured/experienced/undergone

3 normal/common/routine/standard

4 provide/give/allow/donate

### Activity VIII. Writing

Write a similar e-mail to the company in which you explain a repeated failure of lub oil pumps. Prior to each failure, you noticed a fluctuation in lub oil pressure. Metal debris was found in the oil filtration system. Ask for permission to invite a member of Technical Investigations (TI) to attend the vessel to investigate and advise.

## 5. Concluding remarks

The importance of teaching collocations in GE and ESP has been widely recognized. Since there is no substantial research on collocations in Marine Engineering English, the aim of this paper was to determine the most relevant collocations for Marine Engineering correspondence. This was done on a small corpus of e-mails and by extracting corpus frequency lists and concordances, using the MonoConcPro corpus tool. The research has shown that verb + noun collocations are the most common ones in Marine Engineering correspondence and, based on the extracted collocations, we have shown how the ME instructor can improve the teaching process by making use of authentic texts and corpus tools.

This paper will contribute to raising instructors' awareness on the importance of teaching collocations in Marine Engineering English and inspire other researchers to investigate the topic further, for instance by analysing how language learners perceive collocations or how dictionary information on collocations can be used in the teaching process.

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## Appendix A

### Corpus Frequency List

Count	Percentage	Word
520	0.5423%	<i>ships</i>
263	0.2743%	<i>vessel</i>
262	0.2732%	<i>information</i>
215	0.2242%	<i>good</i>
186	0.1940%	<i>confidential</i>
186	0.1940%	<i>error</i>
184	0.1919%	<i>safety</i>
183	0.1908%	<i>contain</i>
182	0.1898%	<i>privileged</i>
74	0.0772%	<i>contact</i>
74	0.0772%	<i>report</i>

## Appendix B

Collocations used in General English

verb + (preposition)+ noun	adjective + (adjective) + noun
(to) communicate information	<i>closer scrutiny</i>
(to) <b>investigate (the) cause</b>	<b>significant</b> implications
(to) meet requirements	safe working practices
(to) have (significant) implications	precautionary measures
(to) make deductions	good practice
(to) <b>implement</b> procedures	environmental policy
(to) enter (into) discussion	
(to) encounter problems	
(to) comply (with) regulations	
(to) monitor effectiveness	
(to) follow advice	

**Appendix C**

Collocations used explicitly in Marine Engineering correspondence

verb + (preposition) + noun	adjective + (adjective) + noun
(to) supply samples	<i>severe fluctuation</i>
(to) draw samples	<i>surging fluctuation</i>
(to) test samples	<i>restricted areas</i>
(to) cancel réquisition	<i>cleaning procedure</i>
(to) assist (in) maintenance duties	<i>testing procedure</i>
(to) complete (the) check list	<i>standard test</i>
(to) require spares	<i>hot work</i>
(to) subject (to) cleaning procedure	
(to) ventilate tanks	
(to) endorse record sheet	
(to) discharge sewage	
(to) incur costs	
(to) incur losses	
(to) schedule (the) inspection	
(to) replenish bunker oil	
(to) dismantle pump	
(to) receive (a) quote (for spares)	
(to) request (a) quotation	
(to) suffer (a) failure	
(to) suffer (an) injury	
(to) specify details	
(to) comply (with) (working) practices	
(to) record (a) failure	
(to) record (a) repair	