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The Use of Crossword Puzzles as a Strategy to Teach Maritime English Vocabulary

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Abstract. Vocabulary mastery holds a special status in the teaching of specialized languages, as it represents a crucial element in the learners' professional development. Student-focused approaches to teaching highlight learner-centered techniques and strategies for the efficient learning of specialized vocabulary, such as explicit vocabulary-building activities. Crossword puzzles can be one way for learners to experience such learning, since they are beneficial on a number of different levels: they are entertaining and challenging vocabulary practice tools, they stimulate student motivation and autonomy, and they lead to better vocabulary awareness and retention. With this in mind, the present paper aims to illustrate the practical uses and benefits of crossword puzzles in teaching and learning maritime English vocabulary.

Keywords: Maritime English, vocabulary, crossword puzzle

1. Introduction

Current research dealing with the teaching of languages considers vocabulary knowledge to be a very important issue in developing language mastery since it is strongly related to all language skills, including listening, speaking, reading, and writing. Nation speaks about the complementarity between vocabulary acquisition and language use. Vocabulary acquisition enables language use and, vice versa, language use leads to an increase in vocabulary knowledge. (Nation 2001) Therefore, vocabulary teaching should be placed at the centre of language teaching, since one cannot learn a language without learning its vocabulary, its lexical items. We might go even further and say that to convey a message one primarily needs to use words, and then grammar, or, as Wilkins puts it, "You can say very little with grammar, but you can say almost anything with words".[1] Language teachers and applied linguists now generally recognise the importance of vocabulary in teaching and learning a foreign language, and are trying to develop new techniques and strategies of promoting it more effectively.

This particularly applies to Maritime English teaching and learning, where strong vocabulary mastery would give the future specialist the right terms to use in a particular work situation. Without an extensive vocabulary, the grammatical structures and functions that may have been studied could not be used for comprehensible communication. On the other hand, certain professionals whose General English level is not very good often manage to convey meaning and communicate in English using terms and term phrases related to their occupation, irrespective of their level of grammar knowledge. This scenario is seen as preferable to the one where the individual has grammar knowledge but lacks specialized vocabulary, which ultimately implies that vocabulary has a more important role to play in conveying meaning than grammar does.

For instance, when sailors go aboard, the main problem they face is communicating with an international/multilingual crew and getting their messages across. This can be achieved mostly by

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[1] Wilkins 1972, apud Thornbury, 2002: 13.

vocabulary structures such as standard marine communication phrases than by grammatical structures or rules. We therefore believe Maritime English teachers should focus more closely on the reasoned exploitation of vocabulary, as well as on its extension by means of new vocabulary learning strategies, including fun vocabulary activities or games. In order to satisfy the maritime English learners' needs, teachers need to adapt and adjust teaching methods and strategies so that students effectively acquire specific lexical items. More and more studies argue that vocabulary retention can be achieved more easily if vocabulary practice implies educational games such as puzzles, board games, etc.[2] Using games for educational purposes is related to the constructivist learning theory. The ensuing situated learning and experiential learning theories promote the ideas of learning in a significant context, alongside social interaction and collaboration (Anderson et. al. 5-11), and learning by doing (Kolb 84). The benefits of these approaches can be significant. Games appeal to learners, keeping them more focused in a pleasant learning atmosphere that is bound to stimulate creativity and self-expression.[3]

Our paper looks into one of these strategies, namely the use of crossword puzzles to teach English maritime vocabulary to Romanian learners, which we believe can be a successful strategy of increasing motivation and building up specialized vocabulary in Maritime English learners.

2. Teaching maritime English by means of crosswords. The direct vocabulary teaching approach

In teaching ESP, namely Maritime English, we believe a direct vocabulary teaching approach should prevail, and explicit vocabulary-building exercises such as crossword puzzles are a teaching option. As opposed to an indirect vocabulary teaching approach, in which vocabulary acquisition happens as a result of communicative activities, such as listening to stories, reading passages, performing dialogues and group work, a direct vocabulary teaching approach or "intentional vocabulary instruction" (Hutch and Brown 415) will focus on explicit vocabulary exercises such as matching words with various types of definition, studying vocabulary in context, split information activities focusing on vocabulary, etc. (Coady and Huckin 241) With maritime English, learning takes place *intentionally*, rather than *accidentally* or *incidentally*, as it often is the case with general English.[4] When teaching vocabulary intentionally, the teacher should draw the students' attention to a particular word and make sure they notice it. The teacher can do this through highlighting the target words, by underlining, boldfacing or circling. (Coady and Huckin 239) Using crosswords is another way of making specific maritime terms stand out.

There is no doubt, maritime vocabulary can also be taught in an integrated manner, by immersion in specialized texts, however, we believe that a methodical and systematic way of teaching and revising specialised vocabulary is crucial. In this way, explicit vocabulary lessons are built to increase students' awareness and enhance vocabulary retention. The Maritime English teacher might conceive his crossword puzzles based on specific glossaries or lists of technical or specialized terms and phrases, related to a particular text used in class. The text, of course, offers the context for the terms and facilitates students' understanding.

As mentioned by Hutch and Brown, learners need to take five steps in order to enrich their vocabulary: 1. encounter new words, 2. understand the word form, 3. understand the word meaning, 4. consolidate word form and meaning in memory, 5. use the word. (Hutch and Brown 373) This can also be achieved through crossword puzzles, since learners can encounter new terms and phrases, get a clear image of the word form, its spelling, meaning, and even pronunciation. Finally, all these steps lead to the consolidation of the terms in memory and their actual usage in speaking or writing assignments.

3. Vocabulary Selection

It is sometimes difficult for students in technical universities not to be overwhelmed and discouraged by the vastness of specialized vocabulary they need to know. The future specialist is faced with a multitude

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[2] See also William (2007), Weisskirch, R. S. (2006), Ferreira and Jaouen (2015), etc.

[3] For more on the advantages of using games in class, see H.Gaudart (1999) and Kumar, Lightner (2007).

[4] Schmidt (2001) believes incidental vocabulary learning takes place through exposure, when the learners' attention focuses on the use of language rather than on memorization.

of terms that he needs to acquire, some being unknown even to the most cultivated of English speakers. When looking for the best strategy for the selection of maritime English vocabulary, we can apply the same variables that researchers have used with reference to general English vocabulary, namely the factors of frequency, range, combination, definition and substitution of words.[5]

The purpose of a well-constructed maritime English lesson is to provide students with an average-size word bank that they will be able to master in their future jobs. The terms should be chosen according to several criteria of usage, frequency and possibilities of structural and semantic exploitation. In practice, these terms should serve as a trigger for students to search for a set of associated words or collocations. The starting point of the lexical work could be a small set of terms that learners already know and can provide, completed by other terms highlighted by the teacher. First, the teacher makes a diagnosis of the students' needs, i.e. lexical items that may pose problems for students' comprehension, and then the teacher plans the vocabulary lesson, or the most appropriate vocabulary activities. (Seal 298)

Thus, when designing crossword puzzles to teach maritime English vocabulary, terms are chosen according to certain relevant criteria. They are part of the usual terminology related to a particular topic from the curriculum; they are frequent in the sense that they are also found in the semantic fields of other maritime topics; they offer flexibility of exploitation in varied lexical settings or contexts; they are organised according to several grammatical classes to offer syntactic diversity, etc.

One of the fundamental principles for a systematic teaching of maritime vocabulary is that precedence should be given to the verb and the noun, because these two lexical elements structure the sentence, and make it possible to study vocabulary in collocations and in contexts and not in simple lists. Any name does not serve as subject or complement to any verb, nor does it serve as support for any adjective. There are affinities between terms, and semantic roommates may easily form large clusters of terms related both semantically and syntactically.

Moreover, terms should be hierarchally organised. Crossword puzzles are usually organized around specific topics or general categories. Indentifying the topic will help students identify terms that normally display some degree of relationship. Our crosswords usually limit themselves to those terms that are part of a specific word bank, iconic for a specific topic so that students acquire a minimum of vocabulary needed in order to be able to communicate with a minimum of misunderstanding. For instance, *anchor, chain, windlass, stopper, wildcat, hawsepipe*, are answers that belong to the category topic "*ground tackle*". Also, when designing crosswords, the teacher could choose terms according to the relation of hyponymy they manifest, since the meaning of a word can be determined by its family. The relation of hyponymy refers to members of the same class or *family*, and includes the upper term or the *superordinate*[6], and the lower term or the *hyponym*. (Palmer 96) For example, *fore, aft, abaft, astern, aloft, port, starboard, abeam, athwartships*, etc. are co-hyponyms of "directions".

4. Types of clues

According to the type of clues they rely on, there are several variants of the crossword puzzle. Generally speaking, there are two main types of clues, namely straight or quick clues and indirect or cryptic clues. The first category includes generic, synonymic, antonymic, definitory, and descriptive clues, the second features clues whose answers do not lie in their literal meaning, such as double meanings, anagrams, inversions, etc. (Bressan 1970) They usually end with a question or exclamation mark to indicate the use of a metaphor, pun or wordplay. When designing a crossword puzzle, especially for ESP teaching purposes, one would prefer not to use this type of clues, since decoding the meaning of a cryptic clue, which is a puzzle in itself, can be rather difficult and frustrating even with higher English level classrooms. Therefore, to facilitate students' puzzle deciphering, we encourage the use of straight or quick clues, which we believe fit best a Maritime English class.
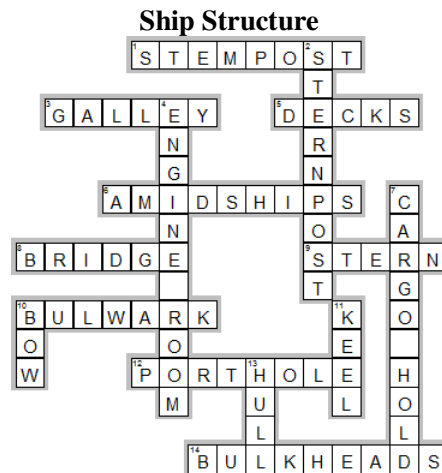
Crosswords serving teaching purposes were categorized even in older studies such as David Wolfe's, where clues are adjusted according to students' needs and levels. In this case, vocabulary clues

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[5] West (1953) mentions these factors in *The General Service List of English Words*.
[6] Lyons (1997) also uses the term *hyperonym* to refer to the superordinate.

may include definitions, synonymous and antonymous phrases, fill-in-the-blank items, bilingual clues, partial answer clues, picture clues, general knowledge clues, etc. (Wolfe 177)

Next, we illustrate a crossword activity based on maritime English vocabulary related to ship structure. The example that follows depicts three main subtypes of straight or quick clues, which we find most useful in teaching maritime vocabulary: definition clues, fill-in-the-blank clues and bilingual clues.

Ship Structure

Definition clues	Fill-in-the-blank clues	Bilingual clues
Across **1.** the upright structural member or post at the bow **3.** the kitchen on a ship **5.** flat structures that divide the hull horizontally **6.** the centre part of the ship **8.** the highest deck in the superstructure **9.** the after part of the ship **10.** parapet, spargeval de punte **12.** a small, round window in the side of a ship **14.** walls that divides the inside of a ship **Down** **2.** the upright structural member or post at the stern **4.** the place on a ship where the engine is **7.** the space in a ship in which goods are carried **10.** the forward part of the ship	**Across** **1.** In the bow, the hull is attached to the ... **3.** On a ship, food is cooked and prepared in the ... . **5.**... divide the hull horizontally. **6.** The centre part of the ship is ... **8.** The ... is the highest deck in the superstructure and the nerve centre of the ship. **9.** The after part of the ship is nearest the ... **10.** A ... acts as a barrier against the force of the waves. **12.** A ... lets light and air into the cabins. **14.** ... divide the hull vertically. **Down** **2.** In the bow, the stern is	**Across** **1.** etravă **3.** bucătărie (pe navă) **5.** punţi **6.** cuplu maestru **8.** punte de comanda **9.** pupa **10.** parapet, spargeval de punte **12.** hublou **14.** pereţi de compartimentare **Down** **2.** etambou **4.** compartiment al maşinilor **7.** magazie de navă **10.** prova **11.** chila **13.** corp de navă

11. a heavy metal plate at the base of the hull **13.** the body of the ship	attached to the ... **4.** In the ... we find the engine and the command telegraph. **7.** Cargoes are stored in ..., usually situated at the bottom of the ship. **10.** The forward part of the ship is nearest the ... **11.** At the base of the hull there is a heavy metal plate called the ... . **13.** The main body of the ship is called the	

Definition clues vary according to the requirements of the classroom situation. Interpreting definitions in English helps learners acquire new words, but demands better English knowledge, and should therefore be designed to suit learners' level and needs. To come up with such clues, maritime English teachers could come up with their own clues, as prompted by the study unit, or could use the dictionary. In both manners, the term meaning is dictated by the context, which eludes ambiguity. We should also mention here, synonym and antonym clues, which can appear individually or together with the given term definition. However, the incidence of interchangeable synonyms in Maritime English is very rare, since certain semantic particularities can be detected even with terms that might seem synonyms. Moreover, antonym clues are restricted to crosswords containing mainly adjectives and verbs.

Fill-in-the-blank clues are based on one of the most prominent types of English teaching activities, and represent a good way to assess vocabulary. With this type of clues, students need to fill in a given sentence with a suitable term. They are important to our study in that they offer the appropriate context for students to infer term meaning and form at the same time. This ultimately leads to better consolidation of the target lexical items.

Bilingual clues crosswords contain the clues in the mother tongue and the answers in the target language. When using translation in a crossword puzzle activity, the aim is to find equivalent terms from the mother tongue to the target language. This can be a valuable strategy of acquiring vocabulary. The main advantage of bilingual clues is that they require little time to develop. As a drawback, this approach may leave some conceptual holes, relying on the memorization of the terms more than on their comprehension. Frequently, a more detailed explanation of terms may be needed, especially when introducing new technical concepts.

Picture clues are also relevant in helping students to master aspects of maritime English vocabulary, such as term meaning, form, and the use of the term itself, pictures crosswords may prove effective. Nugroho and Suprapto highlight the importance of using picture crosswords in class, as they "can help the students to imagine *the thing* of the word". (Nugroho and Suprapto 217) The correlation between concept and term is indeed one of the most sensitive aspects of Maritime English. In order to be able to use maritime terms, students must first be able to grasp their meaning. To accomplish this purpose, picture crossword puzzles may prove to be a meaningful teaching technique for the comprehension and the retention of maritime terms associated particularly with concrete nouns, such as onboard instruments, tools and devices, etc.

5. Benefits of using crosswords in class

What makes crosswords stand out is their adaptability and availability, as well as their attractiveness to students. They are a quick way to produce teaching material tailored to the type of classes and addressing the needs of the learners, by using crossword software that is is cost-free, flexible and easy to use. They

take the form of a usefull drill helping students decode terms and their meaning from the context of the clues, at the same time offering the desire to solve a puzzle while enjoying the satifaction of completing the task.

Using crosswords in the maritime English class marks a break from the teacher-centred approach, following recent developments in educational psychology which have given more importance to the role of the learner in the teaching/learning process.[7] Researchers such as J. Harmer believe that students should "discover things or research things for themselves". (Harmer 115) We believe crossword puzzles are one way for students to experience such learning. In this way, the learner takes on more responsibility during the learning process, while the teacher plays the role of the guide and facilitator.

Among the benefits of using crosswords in the classroom, Bressan mentions vocabulary acquisition and consolidation as the most relevant, followed by orthography and morphology practice/knowledge. (Bressan 94) Indeed, crosswords are a good form of language practice as they offer an alternative to more traditional ways of practicing and revising vocabulary in a challenging, competitive environment that increases student motivation. (Bressan 93-95) Crosswords are very exciting activities meant not only to practice and to test, but also to consolidate the new lexical information found in a teaching unit into students' memory. Used on a regular basis, as a way to revise after a study unit, crosswords provide enough motivation for students to review previous lesson's vocabulary. It is precisely the aspect of motivation that is the main trigger influencing students in their success or failure in learning English. As a rule, after becoming familiar with a number of terms and phrases, and after acquiring new vocabulary items, students' confidence also increases[8].

6. Conclusions

Given its popularity and adaptability, the crossword puzzle can be effectively used to teach vocabulary in the maritime English classroom. Crosswords represent a less threatening way to practice vocabulary or even test it; they can be designed to cover any specific topic, and can be modified in order to suit the classroom purpose. Vocabulary teaching therefore happens intentionally as the teacher targets specific items, whose importance is emphasised. However, the key to the success of crosswords is that they launch a motivating challenge for language learners, and thus vocabulary study is made fun and attractive. This strategy offers students the opportunity of taking charge of their own learning, by improving vocabulary mastery in a relaxed environment, where both entertainment and enjoyment are present.

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[7] See also Nunan (1992), Slavin (2003), Harmer (2005), Woods (1996).
[8] See also Harmer (2005) who raises the issue of self-confidence as a very important factor for good writing

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