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## **Corpus-based Approaches in Teaching ESP Terminologies (Medical terminology)**

*The paper is devoted to corpus-based approaches to teaching ESP terminologies. The most essential advantage of applying corpora in foreign language teaching is its empirical basis, constant updating, and availability of proof of using a lexical unit in different meanings. All of these factors positively affect the process of learning, stimulate students to enhance their knowledge of language, show them and teach them vital self-education skills. The given work deals with teaching ESP terminologies via monolingual and multilingual corpora, work with parallel corpora containing frequency and collocation related data.*

*This paper is also devoted to some theoretical considerations and practical suggestions that can be applied in any other field of teaching specialized vocabulary, since teaching specialized vocabulary/terminology is an integral, and probably the most important, part of ESP lessons where students study English through a field that is already known and relevant to them to a certain degree – depending on their educational level.*

*Problems of selecting, presenting and practicing terms will be approached from both theoretical and practical points*

*of view. Examples and conclusions will be based on teaching ESP terminologies.*

*Most of the linguists and methodologists point to the following important considerations when discussing ESP teaching in general:*

- *differences between General English and Specialized English;*
- *importance of corpus-based approaches in teaching ESP terminologies*
- *approaches to effective learning and roles of the teacher;*

*Keywords: ESP terminology, context; miscommunication; Interdisciplinary approach; Teaching terminology, Corpus-based approach;*

## *Introduction*

Specialists underline that “specific” in ESP refers to the specific *purpose* for learning English. “‘Tell me what you need English for and I will tell you the English that you need’ is the guiding principle of ESP”, state Hutchinson and Waters (1987, p. 8); The fact that “ESP is designed to meet specific needs of the learner” is the most important characteristic according to Dudley-Evans and St John (1998, p. 4).

This article focuses on the frequent use of ESP terminologies, especially medical terminology within corpus-based approaches and identifies difficulties related to the process of teaching them.

Medical terminology is the study of words used to communicate facts and ideas particular to medicine and is chiefly concerned with the present use and meaning of such words. Over the past few decades, many changes in medical education, particularly at the undergraduate level, have been introduced. Increasingly, innovative curricula, methods and educational tools were developed due to the cooperation of medical professionals with pedagogues, sociologists, psychologists, information specialists and those in many other related professions. This cooperation helped bring to medical education various concepts, definitions and vocabularies not previously known to medical professionals.

With continued increase of international contacts in various fields, much attention has been attached to the design of ESP/ English for Medical Purposes (EMP) courses that can prepare students for professional communication with colleagues of other countries. However in the practice of teaching English medical terminologies, questions have been raised by teachers and educators again and again, such as: Where should the teachers start? What can be done about students’ poor motivation? How should teaching materials be selected? Does an interdisciplinary approach make it easier to teach terminologies? Designing a course that can best serve

students' interests and needs is a challenge for many teachers of EMP in Georgia. Therefore, in brief, this research attempts to clarify the difficulties found most and least frequently by the learners and the role of corpus-based approaches of teaching terminologies.

Medical terminology is the standard vocabulary used in the health care field. With this terminology, medical professionals can easily and accurately describe anatomy, procedures, diseases and conditions. Physicians and nurses use this type of terminology extensively. Those who work in medical billing and assisting must also have a basic understanding of medical terminology to communicate. Learning medical terminologies can be challenging to those entering the health care field. Doctors consistently use special terms as a result patients fail to disclose significant meanings. Patients should ensure that there is neither miscommunication nor mismatch between what the patient wants and what doctors assume the patient wants. According to Gylys and Wedding, medical terminology is a specific terminology used to achieve the purpose of communication in the health care field efficiently and precisely, such as in writing diagnosis and doctors' notes (1983, p.89).

Our research involved gathering data on learners' views on their learning needs and expectations, on encountered difficulties in learning Medical English terminology in a university setting, the degree of importance of proficiency in medical areas of language, and collecting and analyzing learners.

### *Building an ESP Corpus*

Several factors are significant when building a corpus. Pearson (1998, p. 78) discusses several relevant factors that need to be taken into account when building special purpose corpora, such as size, text type and origin, authorship, factuality, technicality, audience, intended outcome, setting and

topic. In an ESP corpus, the selection of the topics depends on the learners' field of knowledge. The criteria of authorship and audience are very important, since these will determine the degree of technicality of the texts. Not all these aspects are equally significant, and ESP teachers have to make learner-oriented decisions since the optimal design of a corpus is highly dependent on the purpose for which it is intended to be used.

The aims of corpus-based linguistics in teaching can be summarized as follows: teaching about (i.e., the principles and theory triggering the use of corpora), teaching to exploit (i.e., the practical, methodology-oriented aspects of corpus-based analyses), exploiting to teach (i.e., using corpora as a resource to enhance teaching), and teaching to establish resources. Despite criticisms of corpora use in teaching, such as atomized descriptions of language use or ignorance of contextual aspects of texts (which can still be counterbalanced).

### *Methods and Materials*

Participants in the current study were 100 intermediate and upper intermediate students at Tbilisi State Medical University and at the University of Georgia. The categories of medical terminologies were arranged according to the medical books they were studying each semester. Our goal was to help them learn the tools of word analysis that will make the understanding of complex terminologies easier. Medical terms are very much like puzzles. This empirical research illustrates the use of such a questionnaire as a tool to:

- A. To define the importance of teaching medical terminology based on corpus-based approaches.
- B. To explore the problems students are facing while studying ESP terminologies.
- C. If the corpus-based approaches make methods of teaching terminologies easier.

In order to explore the problems empirical research was done included the following questions:

1. How many terminologies are recommended to study during one lecture? Why?
2. Is it possible to communicate with a doctor without a basic knowledge of medical terminology?
3. Does professional knowledge help you to catch the meaning of ESP terminology?
4. Is it possible to get the meaning of the ESP terminologies without taking a special course?
5. Is it possible to catch the meanings of ESP terminologies based on corpus-based approaches?

a. Smoking ----- The tobacco industry constantly and aggressively seeks new users to replace the ones who quit and the current users -up to half-who will die prematurely from, **heart attack, stroke** or other **tobacco**-related disease.

b. Healthcare in the USA ----- Being a highly –industrialized nation, finding a doctor in the United States is not difficult at all. There are hundreds of **medical practitioners** to be found in every state.

c. Drug Use ----- There is currently no **coordinated registration system** for these users in Georgia, and the difference between the number who have been registered and the actual **observed users** is quite high.

d. Epidemiology ----- The science of epidemiology was first developed to discover and understand possible causes of **disease like smallpox, typhoid and polio among humans**.

6. Can you catch the meanings of ESP terminologies without a context and define their difficulties?

- a. contagious diseases      b. health care utilization      c. top statistic  
d. drug innovation

7. Is it possible to get the meaning of the ESP terminology based on their definitions?

- a. The branch of medical science dealing with the transmission and control of disease.  
b. Social insurance for the ill and injured

8. Does the corpus-based approach make it easy to study ESP terminologies?

### *Results and discussion*

We defined four types of groups according to the students' answers. Questions dealt with the difficulties of teaching terminologies and revealed the role of terminologies in enriching the vocabulary and motivation for learning the language. Some interesting conclusions can be drawn:

- 70% percent of students prefer studying terminologies based on the context
- 90% percent out of the students consider the corpus-based approach as one of the easiest way of teaching special terminologies.

- 85% percent of students have come to the conclusion that professional knowledge helps them catch the meaning of ESP terminologies easier.
- 95% percent of students consider the knowledge of medical terminologies as one of the most significant aspects in the medical fields.

Having selected the new terminology to be introduced, the next step is presenting it in such a way so that it can be understood and memorized easily by students. The best way for doing this depends on the terms themselves. As there are the following possible situations:

1. In some circumstances, **a term is cognate** and does not cause difficulty. In many cases there is a one-to-one relationship between the terms in English and the learners' L1, and so it will be enough to translate the term into the L1 after a brief explanation.
2. If the **term is not cognate** and is unfamiliar, then it may need to be introduced and explained before the exercise is tackled. The best teaching situation would be one in which the new term is presented with its definition.
3. In some situations, learners start a new course that is completely new for them. One approach is for the language teacher and the subject expert to prepare **a glossary of new terms** with straightforward explanations of the terms.

In all of the above cases, introduction of the new vocabulary should be inseparable from explaining a words meaning in the context of the real life in a simple and interesting way.

**Verbal techniques** of explanation can include, but are not limited to:

Presenting the new term with its **synonym** or **antonym**,

Presenting the new term **in a scale**,



**matching/labeling** – when students match to their definition,

This technique belongs to discovery techniques which activate the learner's previous knowledge of a language and initiate work with the new vocabulary. Discovery techniques requires an autonomous students with higher knowledge of English.

Another possible approach for introducing new terminology is by presenting terms in a **systematic way**. This approach requires coordinated efforts by multiple specialists (both subject specialists and linguists) in order to collect, present and analyze the system relations between the main concepts, respectively ESP terms. Moreover, this approach requires language items to be classified not on the basis of their overt formal properties, as, for example, in an alphabetical order, but according to the properties of the concepts to which they refer. One of the possible ways of applying a systematic approach is by representing 'whole-part' relationships between terms and indicating the connections between concepts consisting of more than one part and their constituent parts.

The choice of one of the above-mentioned methods of presenting terms will depend on students' level and interests, as well as on the context (terminologically loaded or of a general nature) in which terms to be studied and memorized appear. With intermediate to advance students it will be beneficiary for them to receive a more complete picture of a set of terms presented as a system with hierarchical relations between them.

### *Conclusion*

Our empirical research has shown the great importance of medical terminologies to conduct professional communications. With the help of an interdisciplinary approach it makes easy to catch the meanings of unknown terminologies. Medical terminology covers the specific words and phrases

you will need to learn to function effectively and understand the “language” of healthcare. Whether you deal with the clinical side or the administrative side, everyone involved in healthcare uses various terms to describe procedures and office practices. Many of the terms used in healthcare are “built up,” which means they are formed from word parts. You must learn how to understand words by breaking them down into parts.

An important achievement occurs when students are able to make intelligent guesses about the meaning of special terminologies. The results of the experiment indicate that knowledge of English medical terminologies is foundational in learning medical English to provide optimal care for patients in their future career.

It is not enough to learn lexical units separately; learners also have to know how to combine those units. Therefore, ESP teachers have to draw learners’ attention to collocations. A collocation is the occurrence of two or more words within a short space of each other. Collocations can be dramatic and interesting because they can be unexpected, or they can be important in the lexical structure of the language because of being frequently repeated.

The easiest way to identify collocations is by checking the frequency of a given group of words in a corpus. Obviously, a thorough analysis of the data should be done because that group may occur more often simply because it is composed of very common words. A large part of our mental lexicon consists of combinations of words that customarily co-occur. The occurrence of one of the words in such a combination can be said to predict the occurrence of the other(s).

Native speakers have a natural tendency to combine words in pre-defined chunks that are easily recognizable by their listeners. Curado Fuentes classifies those groups of words in relation to their internal degree of cohesion in a continuum from what is totally unknown to fixed expressions (2010, p.67). The identification of this special language is made by inferring idiomatic

constructions from concordance samples. According to Fuentes the aim is to perceive the fixation of long compounds, and to appreciate the value of this lexical restriction in the subjects (2010, p.118). By identifying and studying collocations learners will form their mental lexicon not only from isolated independent units, but also from pre-combined units, thus consolidating a conceptual system that will allow them to become more proficient at an initial stage of learning.

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