



Research Article

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## The Application of Pharmaceutical English Corpus in Vocabulary Teaching

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### ABSTRACT

*With the development of computer technology and the popularity of the Internet, the construction of the corpus research has made remarkable achievements. ESP Corpus linguistics, which also developed very fast, has gradually become the research hotspot of corpus linguistics. On the basis of the background and meaning of pharmaceutical English corpus, this paper introduces the ideas and ways to create a corpus for pharmaceutical English teaching. Using corpus retrieval software AntConc, the application of this corpus in pharmaceutical English vocabulary teaching are discussed in this paper, aims to explore from the perspective of pharmaceutical a new means of English teaching.*

**Key words:** pharmaceutical English; corpus; word frequency; index line; thesauri

### INTRODUCTION

Corpus refers to a large-scale electronic text link which was get according to certain principles of sampling[1]. It is a sampling according to certain standard collection, to represent a kind of language, or a variation of a language, or genre of the electronic text set, able to provide a lot of language learners and researchers, authentic language material, reflect the actual use of the language. As a kind of new research methods, corpus in recent years are widely used in dictionary compilation, foreign language teaching, foreign language learning, translation research, academic English and English for special purposes[2]. In corpus linguistics, corpus for special purposes refers to a study for some specific purpose to collect and build only specific language material samples in the specific field[3]. In China, corpus linguistics began from the late 1970s and early 1980s, which was used to do research of teaching. A lot of English corpora originate and then serve for English teaching have been established. Corpus and its retrieval technology has become more mature for ESP (English for special purposes), provides a reliable quantitative information teaching and research. Since the 1980s, the China emerged a group of ESP corpus, such as science and technology English corpus, medical English corpus, business English corpus, aviation English corpus, and so on. Compared to it, the construction of China's medicine class English corpus is relatively backward, there is no opening to the outside of the pharmaceutical English corpus for English teachers and researchers. This study sought to build small teaching medical English corpus, and on this basis a pharmaceutical research of English vocabulary teaching, explore the new ways of pharmaceutical English teaching, inspire more scholars use modern methods to further explore the ESP teaching.

Long-term since, our country medicine colleges and universities there is a widespread attention of English teaching Basic English, ignore the phenomenon of esp teaching. University of medicine and pharmacology colleges and schools English classes often only the foundation of the school year English courses, the teaching focus limited to four, six levels of tests, which leads to the students don't understand the professional foreign language data, it is difficult to use English professional knowledge, ESP language quality is low. Although the higher school of our country school widely opened the course of English for special purposes, but teaching present situation is not optimistic, in English teaching from the general English to the faced in the process of transition of English for

special purposes more difficult. Medical colleges and universities of ESP teaching in China mostly adopt the traditional Basic English Language teaching mode. In the process of ESP teaching, classroom teaching become a mere formality, actually The teaching effect is not obvious, there is no play to improve the students' English application ability the role of. In pharmaceutical English, for example, the traditional pharmaceutical English teaching has already been taken got some achievements, but itself is the lack of a clear theory according to the teaching activities according to the instruction, obsolete teaching mode, teaching means, in the current situation is difficult to meet the learning needs of learners and industry demand for graduates. This there are not enough importance, pharmaceutical English teaching, language input and teaching method a single problem. This kind of teaching model trained students in professional field know very little knowledge of English, the English language to effectively combine with medical knowledge, difficult to meet the needs of unit of choose and employ persons. Medical colleges and universities to ESP ability of college students specular highlights on the traditional English teaching is difficult to achieve the goal of training. A suitable the characteristics of the students, conform to the characteristics of school education and the teaching goal, the highly effective English teaching model is necessary to the teaching of English for special purposes medicine colleges and universities is owed Lack of.

### DESIGN OF PHARMACEUTICAL ENGLISH CORPUS AND CREATION

Rename the text. Because in the process of text processing applied to the software and the part of speech tagging part-of-speech tagging software in part-of-speech tagging of text at the same time, the domain of the text to a batch of rewriting, change the domain name from the original ".txt" to ".txt.pos". So you have to use rename software to change domain name back to the original ".txt" to be the next retrieval software to identify the research and utilization of the Super Batch Renamer corpus software to carry on the rename. In the 1960 s, the Swiss psychologist piaget's constructivist learning is put forward learning theory. Constructivism learning theory is that the student is knowledge initiative structure, teachers are the organizers of the teaching process, the construction of knowledge system is not the infusion through a teacher, but learners using the necessary learning materials, through active exploration and thinking to construct knowledge meaning process. Constructivism learning. The core of the learning theory is based on students as the center, emphasizing the learning environment and information resources the effective use of, so as to complete meaning construction. In the teaching, teachers should to learn provide all kinds of teaching resources and broad learning space, planning and teaching task the teaching process, fully mobilize the enthusiasm and initiative of the learners, for learners the significance of the construction of favorable environment. Tim Johns, first put forward in the 1990 s "data driven learning Xi "theory (Data - driven learning, or DDL), it refers to the teaching in class learn to guide students to use computer generated index (concordance) to the eye the slogan to explore teaching methods, including activities and practice based on indexes Xi. Data driven learning is a kind of language teaching mode based on corpus data type, it is the basic concept of learners, by looking at a lot of real corpora phenomenon of language use, words collocation self-discovery, rules of grammar and pragmatics sign, to encourage learners to actively explore, find language facts; The teacher as guide, for learners learning resources, guide the learners to seek, to find, to cultivate learners' autonomous learning ability. Tim Johns, first put forward in the 1990 s "data driven learning Xi "theory (Data - driven learning, or DDL), it refers to the teaching in class learn to guide students to use computer generated index (concordance) to the eye the slogan to explore teaching methods, including activities and practice based on indexes Xi. Data driven learning is a kind of language teaching mode based on corpus data type, it is the basic concept of learners, by looking at a lot of real corpora phenomenon of language use, words collocation self-discovery, rules of grammar and pragmatics sign, to encourage learners to actively explore, find language facts; The teacher as guide, for learners learning resources, guide the learners to seek, to find, to cultivate learners' autonomous learning ability.

### APPLICATION OF CORPUS IN PHARMACEUTICAL ENGLISH VOCABULARY TEACHING

After completion of the English pharmacy corpus with the aid of a computer program or corpus retrieval tools to retrieve, for pharmaceutical English teaching and language study provides strong support. This study used at Waseda university in Japan Laurence analysis software developed by professor Anthony corpus AntConc electronic text retrieval analysis of corpus. The following example explains corpus application in pharmaceutical English vocabulary teaching.

The word frequency statistics corpus are most commonly used in the lexical analysis, especially the word frequency statistics, because of the word frequency statistics are the essential points of the quantitative analysis for all languages; In other words, word frequency data is the basis of study the language structure and language application [5]. Professor for English teaching, teachers should be related to the professional vocabulary, and the first to teach the vocabulary of high frequency.

The traditional classroom, the teacher often rely on his own experience and intuition to judge the importance of a word, there is no real data basis. However, even a native speaker, rich language knowledge in the word frequency, with experience and intuition are not very reliable, not to mention most of native Chinese speakers English teachers

[6]. After the completion of corpus, the teacher can use Ant Conc word table function to generate a pharmaceutical English word frequency table. Each word in the glossary frequency and ordering two parameters, at the top of the high frequency words often is the focus of teaching. Observation based on self-built corpus pharmaceutical English glossary, the top ten words are articles, prepositions, conjunctions, and other functions, the general corpus (e.g., BNC, BROWN) is consistent with the high-frequency vocabulary of parts of speech distribution. However, usually only for expressing grammatical meaning of function words, it is difficult to reflect a particular language in the field of vocabulary characteristics. In order to get the exclusive pharmaceutical English glossary, the function words in the table need to weed out word. Eliminate function word back in the top ten pharmaceutical English word in the majority with nouns, such as drug, cell, skin and permeation, such as study and release as well as a noun can be used as a verb in pharmaceutical English words more used as a noun. In addition, by observing the exclusive high-frequency words in the vocabulary, learners can understand the research emphases and hotspot in the field of medicine, obtain beneficial professional information.

Line index analysis. Corpus contains a large number of instances of language use, the index line are analyzed and summarized, found hidden in a large number of language characteristic and the law of language use instance, is an important application of corpus in language teaching. Corpus retrieval is the purpose of export index line, the index will display search words from context, so that the observer analysis of language rules. Ant Conc index function for each of the retrieved keywords to provide the same context, and centered on the key words on the computer screen. In pharmaceutical English vocabulary teaching, teachers can use this function to guide the student to study a word, in a real to find out from the corpus of the usage of the word and use the law of students subjective initiative into full play. Now in order to release the word, for example, takes the word line guide line operation method simple says. First via the Ant Conc left "Open Files" option under the File menu, find and Open the target folder under the text File Pharmaceutical Corpus. txt, click on the [Concordance] tab, and finally press the "Start" button can generate based on self-built pharmaceutical English Corpus, in order to release for the node word index line. By observing the index line, we can find the node word context characteristics before and after the release, the use of the term in pharmaceutical English form a preliminary conclusion. About to release for the node word index line analysis to combine in the following words collocation are in detail discussed.

#### **WORD COMBINATION ANALYSIS**

Words collocation determines the ability of language learners' target language output, widely regarded as the key and difficult point for language acquisition. Pharmacy with a large number of professional vocabularies in English vocabulary also has a lot of common words, but these words are different from general meanings in English. Such as suspension in general meaning for the "pause" in English, and in pharmaceutical English it means "suspension"; labor in the general meaning of "work" in English, and in pharmaceutical English means "delivery". Through the observation to the vocabulary for the node word index line, analysis of node word language environment, learners can master the professional vocabulary collocation, found that some special meaning in the field of general vocabulary in professional. Still above the release as an example, the word to match analysis, from the analysis of index rose in another way to look at before and after the release of the contextual characteristics. Using Ant Conc Collocates tab, release the left and right 1 position the collocation of words. We found that the release 1 position on the left of the most common collocations mostly qualifier and noun or adjective, seasoning 1 right position of the most common word is a preposition of and conjunction and. Obviously, the release in pharmaceutical English used as a noun, and modify its noun or adjectives are mostly related to drug or experimental operation. To this point and academic English will be more use of nouns and noun phrases. We can get a preliminary conclusion: compared with general English, pharmaceutical English shows strong nominal characteristics [7]. Obviously, through observation and analysis of the collocation of word, learners can not only master the professional English vocabulary common collocation, can also understand the pharmaceutical English language features.

In the field of linguistics, people the call is rich inflections language inflected language (fusional/Inflectional language). Inflected language middle term relationship with the word mainly through the morphological change. English belongs to the indo-european language family in the west the Germanic dialect, absorb a lot of in the process of evolution of the Greek, Latin, French, Spanish, Italian and German and other western the phrase remit of language, of which about 75% of the medical English and Latin(Latin) don't understand. this is what the student to pharmaceutical English the root of the vocabulary was daunting. Therefore, in the pharmaceutical English in the process of vocabulary teaching guided by the ESP conscious introduction of word-formation knowledge will go a long way. Here is a brief introduction of the medicine more common in the English vocabulary word formation. First, affix method (Affixation). Root (root) is bearing the core meaning of the basic unit of the word. Understand the meaning of the root grasp the meaning of the word. Such as erythromycin (erythromycin), the root of erythro-said red, suffix-mycin said. So around the root, use of prefixes and suffixes can derive new English the vocabulary. As the name suggests, the prefix plus in front of the root, suffix added in behind the root. From the general linguistic sense, prefixes change the meaning of the word, the suffix changes the meaning of the word. But from the

perspective of ESP, prefixes and suffixes in pharmaceutical English the most main function is to show that root said material or abstract meaning derived words.

### **THESAURI**

In the preceding part of this paper, it introduces the use of AntConc software to generate pharmaceutical English word table, index, and the operation of the word collocation, and analyzed and discussed based on the three functions [8]. It should be pointed out that, above all sorts of function are surrounding the search term in the usage analysis on the level of phrases and sentences, but can't reflect relationship between words in the text. If you want to find a given genre or topic words characteristics of the text, we need to pick up the subject headings of the text. In corpus analysis, in a single or multiple text with ultra-high repetition frequency of the word called keywords. By extracting and special article has extraordinary frequency of words and word or word group, with co-occurrence relation can learn words from the text level distribution and text subject relationship and the relationship between words, and then determine the theme of the discourse and express the topic word set. Generate thesauri need two corpora: to observe the corpus and reference, and total reference corpus than observation. In this study, team chooses self-built pharmaceutical English. To observe language corpus, the capacity of this corpus is about 100,000 words. Using Ant Keyword List tab, can get the thesauri. As can be seen from the thesauri the research content and the hot issues in the field of professional. Such as carvedilol, carvedilol in the third generation of beta blockers, a nonselective dilate blood vessels, used in heart failure treatment, the subject reflects in recent years the incidence of heart disease caused the attention of the researchers, the rising trend of cardiovascular drugs research and development has become a research hotspot in the field of medicine.

Based on the corpus of pharmaceutical English teaching mode for data driven learning the guiding ideology, advocated observation, hypothesis, testing found that the learning process, and not a word is by rote or mechanical drill. Class activities based on autonomous learning lord, let the students as the main body of teaching activity. according to the teaching goal and teaching learn to content, determine the learning tasks of each class, through phase in the corpus close to retrieve, containing the target vocabulary index line. Then need to get sentences to make the necessary to edit, remove the hard and other inappropriate words son, puts forward the research problem, and then design good teaching by multimedia teaching materials show room to students or printed and distributed to the students, guide students to observe the retrieval results, by the students his observation, hypothesis, inference, and then through the students discuss each other between, finally summarized out the answer to complete the target vocabulary learning. The following in order to cause and lead to, for example, introduce the mode of differentiating had synonyms teaching. Learners of English to the similar meaning in English words are difficult to identify. From the sense, cause and lead to have translated into "cause", many learners to think of these two words can be used interchangeably. Single from the dictionary's explanation and example, learners are difficult to grasp the nuances of the two words. In pharmaceutical English vocabulary teaching model based on corpus on the target system, the students vocabulary were retrieved, get a lot of language example, guide students to retrieve the corpus to look at the example analysis, found him the similarities and differences in semantic meaning and usage. From the point of search results, cause the collocation of words generally contain negative meaning, such as serious diseases, cell death; And lead to the object can be either a derogatory term can also be positive, such as a significant practice, the rational design. The pharmaceutical English vocabulary teaching model based on corpus attention language as an example, straightforward, students are easier to accept.

Class teaching time, after all, is limited, the teacher should be expanded to as much as possible language input, and the term is put in real text, and solves problems. Therefore, teachers can make full use of corpus resources for after class students carry on some targeted counseling. Teachers can accord each class teaching capacity, the target vocabulary index line rationally selection, layout, design valuable to practice Xi. In addition, the teacher can divide students into several study groups, for each a group design conforms to the teaching goal of learning tasks, from through the campus network the main learning materials, discovered by students outside the classroom for this mode of learning, group members to discuss each other, work together to complete learning tasks. Students can be observed in-false a discussion - in the process of verification, subtly pharmaceutical English vocabulary learning usage and semantic features.

### **CONCLUSION**

This article introduces the teaching methods and ways to create learning English corpus, outlines the Ant Conc software word table, index line, the word collocation, functions and operation steps, thesauri, based on the instance of the feasibility of the corpus used in pharmaceutical English vocabulary teaching. The introduction of corpus for traditional ESP teaching mode has brought a revolution, as a modern means of teaching and research, corpus linguistics point of view and method for pharmaceutical English vocabulary teaching and research provides a new train of thought and research perspectives. The construction of the corpus that teachers in the classroom is no longer

subject to personal experience and skills, but by providing a large number of real language materials for students to learn the most commonly used form of expression, native English speakers so that the learners in the limited time and energy to learn the most valuable knowledge. Pharmaceutical English corpus in pharmaceutical English teaching and research has a wide use in the development of prospects and potential value. ESP teachers should change teaching conception, update teaching methods, construct the modern teaching model based on corpus, promoting reform and development of ESP teaching. Because the objective cause construction and application of pharmaceutical English corpus still exists defects in performance in language acquisition in the depth and breadth, but it is believed that pharmaceutical English corpus is not a finished product, in the future study, pharmaceutical English corpus will be more mature and offer some inspiration for the similar research in China.

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