

## Use of Medical English Corpus among Contemporary Chinese College Medical Students: A Needs-based Analysis

By Huanan Su\* & Fengyi Ma<sup>‡</sup>

*The current research paper attempts to expose and analyze the general situation as well as what the needs of use of medical English corpus are among contemporary Chinese college medical students. At the same time, it makes efforts to uncover how to meet the needs for it. One hundred medical students took part in the research and they were asked to answer questionnaires purposefully designed, so as to collect comprehensive data with regard to the use of medical English corpus. The results of the current research has shown that there is a strong need of use of medical English corpus among contemporary Chinese college medical students as well as a severe lack of guidance of it from medical teachers in Chinese medical universities. Thus, this research further suggests that medical teachers should also guide medical students to meet the needs of selecting proper medical English corpus sensibly in their language learning practice.*

**Keywords:** *medical English corpus, use, contemporary Chinese college medical students, needs analysis, language learning*

### Introduction

Corpora, for language learners, have always been an indispensable tool when they learn languages (Fu and Luo 2012). However, for Chinese college medical students, when they are studying medical English, even though the role of a medical English corpus becomes much more important, there is a severe lack of proper medical English corpora accessible for use. Whether there is a medical English corpus of their own, even whether there is a medical English corpus suitable for them to use, it has been playing a significant role for Chinese college medical students in their medical English learning practice.

Researches on the use of medical English corpora all over the world, which began in the 1960s, have provided countless reference experiences and guidance for the vast number of medical English corpus users (Liang et al. 2010). Nevertheless, in China, who has a large population base, or in other words, who has a large number of medical students, there are very few researches related to the use of medical English corpora.

Especially in the new era of the 21<sup>st</sup> century in China, many problems and difficulties regarding the use of medical English corpora have also continued to

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\*PhD Student, College of Arts and Sciences, University of the Cordilleras, Philippines.

<sup>‡</sup>Associate Professor, Department of Foreign Languages, Guilin Medical University, China.

appear. In other words, there are very few relevant researches that have explored issues including what the needs of use of medical English corpus are among contemporary Chinese college medical students as well as how to meet the needs for contemporary medical students in Chinese universities, ultimately helping them effectively use their own medical English corpora and promoting their medical English learning practice (Tang et al. 2011).

The situation above related to the use of medical English corpora also deeply reflects the urgent needs and demands of Chinese college medical students in their current medical English learning process. As is mentioned earlier, researches of medical English corpora around the world has started in the 1960s, mainly aiming at the effectiveness and strategies of use of medical English corpus in the process of medical English learning.

While at the same time, compared with the researches on the use of medical English corpora abroad, there is almost not any research on the issue in China. This has finally led to a situation in which most Chinese college medical students' needs or demands for the use of medical English corpora have become stronger and stronger, making the problem become more and more serious.

Through analyzing the needs of a group of people or what is embedded in an issue, we can definitely help us as researchers see the manifestation of the corresponding problems more clearly. In general, the needs of the Chinese college medical students have triggered the problems to be mainly reflected in the following aspects.

First of all, not every Chinese college medical student has at least one medical English corpus of their own. And then, not every one of them does have relevant medical professionals to guide them to know how to correctly choose one medical English corpus that suits them properly (Yong 2013). Finally, and most importantly, not every one of them does embrace relevant organizations or institutions to provide necessary training programs or training courses to guide them on how to correctly as well as flexibly use their medical English corpora once or if they already have.

## Literature Review

There are in general mainly three parts in literature review, including a basic introduction of use of medical English corpus among Chinese college medical students, a theoretical focus on the knowledge of needs analysis as well as its relationship with language learning.

### *Use of Medical English Corpus*

#### Medical English

The so-called "Medical English", to put it simply, it refers to a manifestation of the relevant application of English in medical disciplines. Since medical English is the way to use English as a language in medical subjects, medical English is not only a professional course, but also a professional major. The learning and application

of medical English knowledge is the same as the learning of the language of English (Ma and Jin 2008). Thus, a comprehensive study of medical English includes medical English listening, medical English speaking, medical English reading and medical English writing, etc.

Medical English, as a form of language learning, is also a kind of knowledge that the majority of medical professional learners must predominate and master. Medical English plays an important role in the language learning process of the majority of medical professional learners (Wang et al. 2009). For instance, medical learners who have mastered a certain degree of medical English knowledge can better apply their medical English knowledge and can more easily read and understand different versions of medical English literatures. This can also more effectively promote the continuous improvement of the medical English knowledge storage as well as its application ability of the majority of medical professional learners.

### Medical English Corpus

A medical English corpus is obviously a tool for medical English learners to provide medical English knowledge as well as to provide medical English knowledge references, which is acting as a medical English knowledge database. We all know that a medical English dictionary is a reference book for words and phrases to provide phonology, meaning, explanation, sample sentences, usages, and so on, which has actually shown us how important a medical English corpus is for learners of medical English knowledge (Yong 2013). At the same time, such a medical English corpus is also important and necessary for the majority of medical professional learners.

It is known to all that in order to meet the needs of social development in today's world, the number of dictionaries has increased rapidly and dictionaries for different topics, different industries and different purposes have been developed. The situation of medical English corpora is no exception; medical English corpora are also divided into many types with different topics according to different medical majors or medical applications.

### Use of Medical English Corpus

Speaking of corpus use, we all know that a language corpus has always been an indispensable tool in the process of learning languages. Especially when language learners are learning a foreign language, the use of a corpus is particularly important. In the past, many researchers have explored how to promote foreign language learning through effective use of language corpus. All over the world, many countries have already studied the general situation of English language corpus use since a long time ago, which focuses on the effectiveness and strategies of using an English language corpus in the process of English language learning.

However, in contrast, compared with the researches on the use of English language corpus, there are fewer and fewer researches on the use of medical English corpora among medical learners. Moreover, many existing researches focus on general English corpus use, while the use of specialized corpora, including

medical English corpora, is relatively rare (Zhu and Li 2013). For example, the majority of medical learners generally lack an understanding of the use of medical English corpora. Therefore, in view of such a situation, the current research aims to provide reference information for the compilation and the use of medical English corpora as well as for medical English teaching by means of investigating the actual situation of use of medical English corpus among contemporary Chinese college medical students.

#### Use of Medical English Corpus among Chinese College Medical Students

The use of a medical English corpus is an indispensable part of the process of Chinese college medical students' learning of medical English knowledge. Similar to the situation around the world, most Chinese college medical students also have a lot to consider in terms of use of a medical English corpus. In general, although the majority of Chinese college medical students understand the importance of use of a medical English corpus, they still do not pay enough attention to how to use a proper medical English corpus accordingly.

Wang et al. (2009) have ever suggested such a fact that the use of a medical English corpus among Chinese college medical students lacks a sort of guidance of relevant professional medical teachers. It has ultimately led to the eagerness of Chinese college medical students to get guidance in this regard. This is because they know deeply that as medical learners, if they can learn some corpus strategies to strengthen the learning of their medical English knowledge, it will be able to better help them use the resources of medical English corpora actively. It will finally transform the general use of medical English corpora among Chinese college medical students from a passive status to a positive one (Zheng 2016, Zhu and Li 2013).

#### *Needs Analysis*

The definition of needs analysis has once been made by Shu (2004) as follows:

...it is a technique and method for doing researches on needs through introspection, interviews, observations, and questionnaires (Shu 2004, p. 82).

In general, needs analysis belongs to the category of empirical investigations and studies. The needs analysis done by people is to understand the needs of the target environment, the inner needs of the targets, and the needs of the targets' expected changes in the external environment, so as to finally find out the problems in the investigations and studies, guiding the needs-based researches as well as improving the needs-based analyses.

It is precisely because needs analysis has outstanding application value in various fields in this new century that it has been widely applied in many fields including the field of economy, the field of education and the field of culture, etc. As language educators and researchers, the current researchers of this research have also deeply felt the impact of needs analysis on language education (Tang et al. 2011).

For example, in the field of language education, needs analysis plays a pivotal role in foreign language education researches. Researches of needs analysis have a long history of development, and they have also formed a relatively complete theoretical framework and theoretical system. There is also a big gap between the researches and discussions of needs analysis in China and abroad.

To a certain extent, this also shows that needs analysis researches abroad are more comprehensive and more systematic than those in China. Moreover, most of the needs analysis researches are empirical survey researches, which also reflects such a fact that the research level of needs analysis among Chinese researchers is far behind that among foreign researchers.

### Needs Analysis Around the World

The researchers of the current study believe that in the development process of needs analysis research abroad, based on the concept of needs analysis, the theoretical framework of target needs analysis and the technical means of needs analysis, the research and development process of needs analysis can be generally divided into several periods. In total, there are four stages including the budding period of research (from 1500 to 1920), the rising period of research (from 1920 to 1977), the development period of research (from 1977 to 2000) and the stable period of research (from 2000 till present).

Firstly, in the budding period of needs analysis research (from 1500 to 1920), Richards (2000) has ever pointed out that at the beginning of the 16<sup>th</sup> century, under the influence of European political changes and economic development as well as the Renaissance (from 14<sup>th</sup> century to 16<sup>th</sup> century), the dominance of Latin was threatened and was gradually replaced by French, Italian and English. Since then, based on that particular situation, language education has generally risen, and needs analysis research has entered the budding period of research.

Secondly, in the rising period of needs analysis (from 1920 to 1977), Howatt (1984) pointed out that in the 1920s, the concept of “Needs Analysis (NA)” was put forward for the first time, and the needs survey was conducted for the first time as well. Thus then the researches on needs analysis were continuously improved through different kinds of results from different surveys. The clarification of the concept of needs analysis marks the official opening of the curtain of needs analysis researches.

At the same time, the application of the results of the needs survey to improve the method of language education had also created a precedent for the language learning needs analysis research method. Taba (1962) has been the first one to incorporate needs analysis into language teaching curriculum, and it was also proposed that the language curriculum should follow seven steps, which is the very important first step for establishing such an important guiding position of language learning needs analysis for language education. These research results have had a significant impact on the subsequent analysis of language learning needs, and have also been recognized by many language education experts and scholars.

Thirdly, in the development period of needs analysis (from 1977 to 2000), the theoretical framework and research methods of needs analysis have gone through

more than 30 years from being proposed to being perfected. This period is also the full application of needs analysis researches in different disciplines. In particular, during this period, researches on English learning needs analysis were the main focus (Chan 2001, Wang 2000). The research content was complicated and the research results were relatively rich, which had made it called the development period.

Finally, the stable period of needs analysis refers to the period of continuous and rapid development from 2000 to the present. During this period, with the continuous maturity of needs analysis techniques and methods, many foreign scholars conducted numerous empirical researches based on needs analysis (Chen 2009, Ma and Jin 2008). For example, in the field of language education, Fiore (2000) has used interviews and questionnaires to analyze the Italian needs of the elderly in the Italian residential area of Sydney, Australia as well as those engaged in elderly services from the perspective of language learners. And it is shown that there is a great need for language learning, and it is necessary for the service staff to learn the language of Italian.

For another example, Lepetit and Cichochi (2002) have used a questionnaire to analyze the needs of medical students from Clemson University in the United States to learn Spanish from the perspective of those medical students, and have found that they have shown a strong need to learn Spanish writing skills in addition to how to apply Spanish dictionary use techniques, etc.

#### Needs Analysis in China

After advanced theories and techniques of needs analysis abroad were introduced into China, in the early 1990s, many Chinese experts and scholars gradually improved their understanding of needs analysis and introduced them into various research fields (Hu 2003, Li 2004). Most of the Chinese researches on needs analysis are empirical researches, they are classified into social, cultural and educational needs analysis researches. Nevertheless, there are still few results of theoretical researches on needs analysis. This is because most of the related researches tend to be superficial, and mostly focus on mere introduction of surface researches.

In China, the role and characteristics of needs analysis model research and needs analysis are mainly reflected in the development of society, the inheritance of culture and the innovation of education. The application of needs analysis in the development of society is mainly reflected in that contemporary sociologists study the social needs of different social people in accordance with different social phenomena (Ma and Jin 2008), so as to propose corresponding social needs frameworks and form theoretical results.

In terms of cultural inheritance, needs analysis mainly analyzes people's needs for an ever-developing culture. Specifically, in the new century, what kind of culture people need to enrich them and improve them, so as to adapt to the trend of social development.

In the field of education innovation, researches of needs analysis are mostly related to guiding education in today's China, especially in the field of language education (Hu 2003, Li 2004). This is because the level of language application

ability of a country directly reflects whether the country is better based on the world stage. The researches on needs analysis in the field of education innovation are mainly discussed regarding such aspects as education syllabus planning, education curriculum designing and education textbook compilation.

For instance, Wang (2000) investigates the English learning needs of college students from the perspective of the students, and applies the results of needs analysis to guide the formulation of the English education syllabus, the determination of English teaching content, and even English instruction evaluation.

#### Needs of Use of Medical English Corpus All Over the World

The needs for the use of medical English corpora inevitably reflect a demand of medical English learners in the process of medical English language learning. As mentioned ahead, for the use of medical English corpora, it also reflects from another perspective of how medical English learners learn and apply a language efficiently (Shu 2004).

In the whole world, academic language learning based on needs analysis, including language learning for specific purposes, etc., has become increasingly important. In China, in the researches of academic English learning based on needs analysis, the development of researches on medical English has become solid and rich due to the new theoretical frameworks and systematic foundations.

Therefore, academic English learning experts and scholars from China are more focused on the specific impact of needs analysis research on academic English teaching as well as empirical investigations of it (Wang and Guo 2016). Medical English learning based on academic English learning theoretical knowledge fully reflects the needs of the majority of medical English corpus users. The needs are obviously necessary, strong, and even urgent.

To conclude, the needs of use of medical English corpus fully reflects the application value of needs analysis theory. At the same time, it has also explained from another perspective that in China, there are thousands of medical English learners who have a need for medical English corpora of their own.

In addition to such a need for have a medical English corpus of one's own, how to use them and how to learn and apply the use of medical English corpus strategies correctly, efficiently and flexibly, are also crucial for the majority of medical English learners (Wang and Guo 2016). Correspondingly, as a matter of fact, this is also the interest of the researchers of the current study as well as the ultimate goal of it.

#### **Research Methodology**

As to the research methodology, since the current research focuses on a needs-based analysis of use of medical English corpus among contemporary Chinese college medical students, there are several aspects of information that the researchers wants to introduce here.

### *Research Purposes*

The current research intends to expose and analyze the general situation of use of medical English corpus among contemporary Chinese college medical students. Specifically, as is mentioned at the beginning of the research, it aims to report what the needs of use of medical English corpus are among contemporary Chinese college medical students. At the same time, it makes efforts to uncover how to meet the needs for contemporary medical students in Chinese universities and colleges.

### *Research Questions*

Based on the research purposes, the current research tries to supply further interpretation to uncover those problems mentioned above in terms of use of medical English corpus among contemporary Chinese college medical students by means of a needs-based analysis.

Therefore, the research questions of the current research are as follows:

Research question No. 1: What is the general situation of use of medical English corpus of contemporary Chinese college medical students?

Research question No. 2: What is the actual level of needs of use of medical English corpus among contemporary Chinese college medical students?

### *Research Participants*

The current research has selected a group of Chinese college medical students from different medical majors with different levels of medical English learning abilities from a medical university in China as the research participants. The total number of the research participants is one hundred.

Among the selected Chinese college medical students, specifically, they come from the same medical university, but they have different corpus use experiences in terms of medical English language learning. Their current majors are different, and the language learning environments they were exposed to are also different from each other before they enter the university. Selecting these college medical students based on such criteria is more conducive to the research in terms of the reliability and validity of this research topic.

### *Research Site*

The researchers have chosen a medical university from Guangxi Province, China as the research site. As is mentioned above, although all the research participants come from different places and they have occupied different corpus use experiences in terms of medical English language learning, in the process of conducting the research, in order to collect relevant data more directly and objectively, the research participants were requested to take part in the same research site from the beginning to the end. This is also aimed at providing a more convenient and objective environment for data research as well as data analysis in the later stage of the research.



*Research Instruments/Tools*

The current research has employed questionnaires as the main research instrument to collect data from the research participants.

As a quantitative research instrument, questionnaires help to facilitate the outcome of the research. Questionnaires can also be regarded as a research method. Therefore, the method of questionnaires is also a research method widely applied in many social surveys nowadays (Creswell and Creswell 2018). The so-called questionnaires refer to the materials used for a variety of collections of data as well as statistics. Questionnaires in a research will generally express questions in the form of questioning.

In the questionnaires of this research, the quantitative research is mainly to understand the needs of use of medical English corpus among contemporary Chinese college medical students. At the same time, it is also meant to understand how the needs of use of medical English corpus among them can be or should be met successfully.

**Findings, Discussion & Recommendations**

In the findings of the current research, the researchers will thus directly answer the research questions based on a detailed discussion of the data collected from the research questionnaires.

*What is the General Situation of Use of Medical English Corpus of Contemporary Chinese College Medical Students?*

With the help of the questionnaires in the current research, the researchers have successfully obtained strong research data to fully demonstrate the general situation of use of medical English corpus among contemporary Chinese college medical students. The following is the most original and true research results after putting all the relevant data of the questionnaires in the current research into the quantitative statistical software of SPSS 23.0.

**Table 1.** *The General Situation of Contemporary Chinese College Medical Students' Understanding of the Importance of Medical English Corpora*

		FREQUENCY	PERCENTAGE	RATIO	ACCU. RATIO
VALID	STRONGLY NOT IMPORTANT	5	5.0	5.0	5.0
	NOT IMPORTANT	10	10.0	10.0	15.0
	NO TO MATTER	25	25.0	25.0	40.0
	IMPORTANT	30	30.0	30.0	70.0
	STRONGLY IMPORTANT	30	30.0	30.0	100.0
	TOTAL	100	100.0	100.0	

Based on the data in Table 1, it is clear that 60% of the research participants recognize the importance of medical English corpora in their own medical English learning. Among them, 30% of the research participants think it is strongly important, while 30% think it is important. It is also shown that only 10% and 5% think it is not important or strongly not important at all.

The general situation of contemporary Chinese college medical students' understanding of a high level of the importance of medical English corpora is actually confirmed by Chen (2013), as well as Wang and Guo (2016) in their researches on the use of medical English corpus and EFL learning among Chinese college medical learners.

**Table 2.** *The General Situation of the Number of Medical English Corpora Owned by Contemporary Chinese College Medical Student*

		FREQUENCY	PERCENTAGE	VALID RATIO	ACCU. RATIO
VALID	NONE OWNED	60	60.0	60.0	60.0
	ONE OWNED	30	30.0	30.0	90.0
	TWO OR MORE OWNED	10	10.0	10.0	100.0
	TOTAL	100	100.0	100.0	

According to Table 2, it is obvious that although 60% (based on Table 1) of the research participants believe that medical English corpora are very important, the ownership of medical English corpora is not satisfactory, with a surprising 60% of the research participants who even do not own at least one medical English corpus. It is also shown that only 10% of the research participants have more than two medical English corpora while 30% of the research participants just own one medical English corpus.

This general situation of the number of medical English corpora owned by contemporary Chinese college medical students can be obviously recognized by Chen (2013) who has ever found that the ownership of medical English corpora is not satisfactory enough to meet the needs of Chinese college medical learners.

**Table 3.** *The General Situation of Frequency of Use of Medical English Corpus of Contemporary Chinese College Medical Students*

		FREQUENCY	PERCENTAGE	VALID RATIO	ACCU. RATIO
VALID	NEVER	50	50.0	50.0	50.0
	SELDOM	30	30.0	30.0	80.0
	SOMETIMES	10	10.0	10.0	90.0
	ALWAYS	10	10.0	10.0	100.0
	TOTAL	100	100.0	100.0	

According to Table 3, it is clearly shown that the results are not optimistic for the frequency of use of medical English corpus among the research participants. Although 40% (based on Table 2) of the research participants have at least one or

more medical English corpora, in sharp contrast, 80% of them basically do not use medical English corpora. Among them, nearly 50% of the medical English corpora are left unused by the research participants.

**Table 4.** *The General Situation of Sources of Medical English Corpora Owned by Contemporary Chinese College Medical Students*

		FREQUENCY	PERCENTAGE	VALID RATIO	ACCU. RATIO
VALID	FROM BOOKSTORES	20	20.0	20.0	20.0
	FROM LIBRARIES	20	20.0	20.0	40.0
	FROM ELECTRONIC MEANS	25	25.0	25.0	65.0
	FROM THE INTERNET	35	35.0	35.0	100.0
	TOTAL	100	100.0	100.0	

The data from Table 4 shows that when the research participants were asked about the sources of the medical English corpora they use, only 20% of them bought it from a bookstore, while 20% of them borrowed it from a library, and nearly 25% of the research participants had said what they used was an electronic version of the medical English corpus. Another 35% of the research participants even said that the medical English corpus they used came from the Internet by means of the online searching function, etc.

Huang's (2013) early survey on special purpose English teaching on needs analysis, together with Wang and Guo's (2016) research on use of medical English corpus has definitely convinced what is shown from the above data.

*What is the Actual Level of Needs of Use of Medical English Corpus among Contemporary Chinese College Medical Students?*

The actual level of needs of use of medical English corpus among contemporary Chinese college medical students is mainly reflected in the following two aspects, which include the needs of how to deal with the relevant new medical words in the medical field as well as when to use medical English corpora in the actual medical English language learning practice.

**Table 5.** *How Contemporary Chinese College Medical Students Deal with New Medical Words in the Actual Needs of Use of Medical English Corpus*

		FREQUENCY	PERCENTAGE	VALID RATIO	ACCU. RATIO
VALID	SKIP NEW WORDS	25	25.0	25.0	25.0
	GUESS NEW WORDS	30	30.0	30.0	55.0
	ADOPT RELATIVE STRATEGIES	35	35.0	35.0	90.0
	HAVE NO IDEAS	10	10.0	10.0	100.0
	TOTAL	100	100.0	100.0	

Based on Table 5, it is fully shown that most of the research participants (90%) are able to deal with new medical words effectively. 25% of the research participants choose to skip the new medical words when they encounter them and wait until they finish the whole article in their reading. At the same time, 30% of the research participants choose to guess the meaning of the new medical words based on the context, and then check the meaning of them after finishing reading the entire text.

The results of the questionnaires also show that 35% of the research participants adopt the strategy of seeking help from a medical English corpus while reading the article since they want to have a full understanding of the medical reading materials. This has actually implied and reflected that the actual level of needs of use of medical English corpus among contemporary Chinese college medical students is pretty high in general.

**Table 6.** *When Contemporary Chinese College Medical Students Use Medical English Corpora in the Actual Medical English Language Learning Practice*

		FREQUENCY	PERCENTAGE	VALID RATIO	ACCU. RATIO
VALID	TO KNOW THE PRAGMATIC MEANING	30	30.0	30.0	30.0
	TO KNOW THE CULTURAL MEANING	30	30.0	30.0	60.0
	TO KNOW THE BASIC MEANING	25	25.0	25.0	85.0
	IT DEPENDS	15	15.0	15.0	100.0
	TOTAL	100	100.0	100.0	

Table 6 has shown that, 85% of the research participants would rather choose to turn to medical English corpora for help when they encounter unfamiliar or new medical words. Specifically, 30% of the research participants choose to seek help from medical English corpora when they want to know the pragmatic or cultural information of the medical English words. While 25% of the research participants choose to look up a medical English corpus just when they want to know the basic meaning of the new medical words.

What has to be noted is that, the results of Table 6 have great implications for the development of medical English lexicography and terminology. To emphasize, medical English corpus editors should strengthen the work of searching and collecting enough kinds of medical professional terms.

In view of this, just as Zhu and Li (2013) suggest, the compilation of medical English corpora should therefore focus on the query function of medical academic terminology in English (Yong 2013), so as to fully reflect and exclaim the professional characteristics and lexicographical excellence of contemporary medical English corpora in the new century.

## Conclusion

### *From Use of Medical English Corpus to Language Learning*

Any kind of use of language corpus belongs to the language learning of a certain language. Therefore, the use of medical English corpora has definitely reflected one of the ways for English language learners to learn the language of English.

The explosive rise and historical development of corpus use have brought major changes to a certain field of language education among many Chinese universities and colleges (Wang et al. 2009). Since then, language educators and language learners can deeply feel those changes and their importance in their language teaching and language learning (Liang et al. 2010).

Thus, a full understanding of the relationship between the use of medical English corpus and language learning goes to how, in the field of language education, the use of medical English corpus among Chinese college medical students promotes and improves the teaching efficiency of language teachers and the language learning manners of language learners.

From a theoretical perspective, the general situation of the use of medical English corpus among college medical students in China has helped most Chinese universities and colleges establish a more comprehensive and scientific instructional system, especially for the language teaching and language learning in multimedia classrooms (Li 2004). Such situation has further provided an effective theoretical framework for the establishment of the instructional system for most of the Chinese universities and colleges.

With regard to teaching methodology among medical English teachers, medical students' use of medical English corpus has been excellent in the use of multi-modal resources for the Chinese college teachers and the cultivation of positive values for the Chinese college medical students. To a large extent, it also focuses on conceptual understanding and knowledge mastery (Zhu and Li 2013), attaching great importance to critical thinking and analytical application skills among Chinese college medical students while they are looking up medical words and phrases in a medical English corpus.

Besides, under the background of foreign language teaching reforms in Chinese universities and colleges, the country has a high demand for new foreign language talents with writing and translation skills (Shu 2004).

In that case, the use of medical English corpus among Chinese college medical students will enlighten the vast majority of Chinese language educators in terms of changing teaching methods in foreign language writing and translation classes, which will guide them to help medical students to effectively use different kinds of medical English corpora. Thus, this is actually a key issue and a promising topic worth being continuously explored by the majority of Chinese language educators and language researchers in the future.

Canagarajah (2011) has ever said that when the socio-cultural theory becomes a new perspective to improve the thinking and literacy skills of language learners, the new literacy theory requires that any writing context should be closely

connected with the world (Hu 2007). At the same time, the Chinese college medical students in turn are given the opportunity as well as the power to make full use of different kinds of medical English corpora, so as to liberate their language ability as well as their thinking creativity in their medical English learning practice ultimately.

### *Limitations*

Although the current research has provided detailed analytical interpretation of the findings regarding use of medical English corpus among Chinese college medical students, it does have some shortcomings. Specifically, the number of research participants is not large enough, the amount of use of medical English corpus accesses among the research participants is small and most importantly, some of the results and findings are basically dependent on questionnaires. In the future researches on such topics or issues, what has been mentioned and listed above should be seriously taken into consideration and comprehensively treated so as to ultimately improve the reliability as well as the validity of the research.

### **Ethical Approval**

The research participants were given a brief description of the purpose and aims of the research. The researchers discussed the steps of the data collection to the participants explicitly and accurately. The participants were also given an opportunity to ask questions, and all questions were answered correctly and dealt with properly before a consent form was obtained from the participants. All participants were given a copy of the informed consent as well as a cover letter reassuring the privacy, anonymity, and confidentiality of the data gathered.

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