VCBTA: A Novel Approach to ESP in Medical Colleges and Universities

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Abstract. English education in medical universities should have its distinct features and characteristics. English for specific purposes (ESP) in medical universities, which is different from English for general purposes (EGP), should not be limited merely to the sphere of biomedicine. To meet the needs of all-round development of medical students in the new era, ESP need to be revamped both in contents and approaches. Visualized case-based teaching approach is a novel approach to serve the above purposes, integrating improvement of English skills, acquisition of academic knowledge, development of critical thinking and cultivation of humanism into the whole course of training qualified medical and health personnel.

Introduction

China has entered a new era of development, and the “the main contradiction facing the Chinese society has turned into the contradiction between the ever-growing demand for a good life and the unbalanced development”\textsuperscript{[1]}. The people’s growing demand for a good life calls for better education, ecology and health. An important way to meet these demands is to improve the quality of medical education. Therefore, English education in medical schools need to provide high-quality English education through innovation to meet the needs of all-round development of college students in the new era.

Current Research

The current English curriculum system and teaching contents in medical colleges and universities are far behind the requirements of the new era. It is known to all that English education in China is a phased continuum, from primary schools to middle schools to high schools, continuing at tertiary level. More than 30 years ago, the English education in medical colleges and universities started with English for general purposes (EGP), aiming at laying a good foundation for students to acquire information in English in the future.

For a long period of time in the past, the English curriculum offered in medical colleges and universities has been following the unwritten rule of “basic stage to improvement stage to professional stage”, which was practiced at the onset of college English teaching 30 years ago, while English for specific purposes (ESP) was arranged as an elective course after the improvement stage.

Related College English Syllabuses

The fact that English for general purposes (EGP) was arranged for quite a long time as the mainstream English curriculum in medical colleges and universities reflects the myths about the
relationship between foundation and improvement. In the college English syllabuses in different periods there are such references: the College English Syllabus in 1985, for example, stipulated that college English teaching must focus on the language foundation. The Revised Syllabus of College English in 1999 mentioned once again that the objective of college English teaching is to “help students lay a solid language foundation”. College English Curriculum Requirements In 2004 referred to college English as a compulsory basic course for most non-English majors at the undergraduate level.

We believe that it is questionable to classify college English courses as basic courses. First of all, the so-called “basic” does not mean that the English teaching at tertiary/college level is still in the “basic stage”. College English education is not the basic English education, because the basic stage of English education has been completed before students enter colleges. In addition, there is a consensus among the international English education community on the basis of English language. For example, the Longman Contemporary English Dictionary, commonly used by most English learners in China, selected about 2,000 commonly used words from the Longman Corpus Network to define and explain more than 80,000 words and phrases included in the dictionary[2]. Cambridge International English Dictionary, another dictionary commonly used by English learners, also defines and explains 100,000 words and phrases with the most common 2,000 words in English. In other words, about 2,000 commonly used English words lay the foundation for the further use and learning of English. With this English foundation, it is not difficult to understand more than 80,000 English words and phrases[3]. Clearly, when high school graduates who enter college and universities to receive higher education already have a considerable English foundation, English teaching at tertiary/college level is not and should no longer be the basic stage of English teaching.

Research Analysis

What Are True English at Tertiary Level

In the course of 30 years of English education for non-English majors in China’s colleges and universities, the theory and practice has advanced in terms of what are true English at tertiary level, its contents, teaching objectives and approaches. So far there is a consensus among English instructors and educators that English at tertiary level needs an innovation-driven revamp[4]. The Guidelines for College English Teaching was issued in 2016 to promote the reform of college English teaching[5].

For a long time in the past, English education in medical colleges and universities has taken a homogenized path, the same as that in other colleges and universities. Main course contents are EGP, neither related to medical disciplines and subjects, nor relevant to social development or to the training objectives set up by colleges and its departments. Obviously, such an English education cannot meet the special needs of medical and health professionals training.

“English at Tertiary Level” Needs to be Redefined

In this context, English education in medical colleges and universities needs to be revamped. First of all, it is necessary to redefine English at tertiary level. According to The Guidelines for College English Teaching, college English courses should be reasonably positioned in accord with the national standards of undergraduate majors, to serve the objectives of the colleges, and to meet the needs of students’ personalized development. Therefore, we redefine English at tertiary level as an
English curricula system, with higher education properties, disciplinary characteristics and specialty features, aiming at helping learners improve English communicative competence, acquire new professional knowledge, sharpen critical thinking skills and foster humanism and global vision. This new definition summarizes the properties of English at tertiary level characterized by disciplines and subject matters, and highlights the significance of English at tertiary level as an important part of higher education in China to promote the coordinated development of college students’ ability and comprehensive quality.

According to this new definition of English at tertiary level, the English taught in medical colleges and universities should be ESP, which should reflect the progress of modern medicine, help students to use English as a tool to acquire new professional information and knowledge when learning English, improve various skills of professional English, and help students be future-oriented and world-embraced to prepare for their career development.

English education in medical colleges and universities needs to reconstruct the medical English curriculum with its own features. The construction of medical English curriculum with modern medicine as the core contents is the basis to ensure the quality of English teaching in medical colleges. Medical English teaching contents should infiltrate into the students’ professional knowledge structure and also into the specialized domain in which students may engage in the future.

The renewal of medical English teaching contents calls for the innovation of the teaching approach. Medical English teaching should be revamped from a language-limited or knowledge-imparting approach to a comprehensive approach of language—subject knowledge—thinking—humanities, so as to improve medical students’ English skills for specific purposes, the cultivation of scientific quality, the development of critical thinking and the promotion of humanism. The renewal of English teaching contents and the innovation of teaching approach, which are to be student-centered, world-embraced and future-oriented, are indispensible to the innovation and development of English teaching in medical colleges and universities. The construction of medical English curriculum with its own characteristics is the cornerstone of the English teaching quality.

Cultivating Medical Humanism is Indispensable in Medical English Teaching

The innovation of English teaching in medical colleges and universities is carried out in the context of the new era of information revolution. The information technology revolution has changed and continues to change not only the way of information and knowledge dissemination, but also the way of people’s cognition and learning, and thus changing the way people work and live.

With the development of information technology, especially with the broad coverage of the Internet, the whole social environment has become the source of information and knowledge acquisition. Once upon a time, books, magazines and newspapers, classes and laboratories, experts and teachers were the main sources of knowledge; lectures in class and reading textbooks were the main ways to acquire knowledge; and tools for English learning were books, dictionaries, audio tapes and so on. Nowadays, the development of information technology continues to bring convenience to English learning: multimedia players and projectors make obsolete blackboard, chalk, recorder and other tools in English teaching in class, while the terminal equipment and software connected to the Internet make it convenient, vivid and interesting to learn English anytime and anywhere.
English learners in the new era have some characteristics different from those of the pre-Internet learners. As they are growing up with the development of the Internet, the use and mastery of information technology has naturally become a part of their lives. They have been exposed since childhood to a large number of images, videos, and graphics through movies, animations, advertisements and other channels to acquire the needed information. They have got the habit of capturing information by fast reading interesting pictures. A large amount of visual and auditory information obtained by network terminals also makes them knowledgeable and stimulates their desire for innovation. In the face of such medical students with the characteristics of the new era, the ordinary English teaching contents and approaches cannot meet their learning needs and wants, nor can English education at tertiary level achieve its fundamental purpose.

The cultivation of humanism is particularly important to promoting the humanistic feelings of medical and health professionals, because medicine is a science to do with human life and health, with its fundamental purpose to promote the human health and development. Humanism is a kind of universal human self-care, which is manifested in the maintenance, pursuit and concern of human dignity, values and destiny. Medical humanism is the embodiment and application of humanism in general in medical and health practice, and it is also a concern for the quality of life. Medical humanism is embodied in the concern and care for life and health, rights and needs, personality and dignity of the patients.

Since ancient times, medicine has been regarded as a discipline with the most humanistic traditions and doctors have been considered to be a most humane profession. In ancient China, medicine was known as “charity”; doctors were known as “kindhearted man” and rendering medical services was considered to be an ideal way to give benevolence to others. With the rapid development of modern medical technology, doctors now have more and better technical means to diagnose and treat diseases. Due to the trend of specialization in medicine and the emergence of modern medical techniques for diagnosis and treatment, doctors shift their focus from caring for patients to concerning themselves about the causes of disease and identifying genes, molecular structure or functional changes related to diseases. Due to professional pressure, doctors tend to spend more time keeping up with the development of medical technology than listening or talking to patients, thus overlooking the feelings of patients. As a result, people are faced with such a dilemma: on the one hand, modern medical technology has reached a new level and patients can get better medical treatment than before; on the other hand, the humanistic tradition of medicine has been weakened, and the doctor-patient relationship has become less harmonious.

The humanistic elements in medicine are the core throughout the history of medical development. Without the core of relieving suffering and ensuring human health, the development of medicine has lost not only its momentum, but also its direction. The weakening of humanistic care and the loss of medical humanism in medical and health practice under the current circumstances of modern medical technology indicate that in medical schools more attention should be paid to the cultivation of humanism while prompting students to acquire knowledge and skills. The cultivation of medical humanism integrated into medical English teaching is in line not only with the goal of medical education, but also with the requirements of social development in the new era for the reform of English teaching in medical colleges and universities.
Discussion and Results

Improving Medical English Skills and Cultivating Humanism Should be Integrated into the Innovation of the Teaching Approach

Up to now, English teaching at tertiary level has been mainly implemented in the classroom environment, not without some obvious problems in the process of implementation. The problems include “the untight combination with professional education, divorce with practice, teachers’ lack of awareness and ability to carry out innovative education, the simplicity of teaching approaches, and the ineffectiveness of pertinence.” [7] Besides, outstanding problems in English teaching in medical colleges also include the incomplete curriculum and improper or outdated teaching approaches.

Innovating the teaching approach can not only promote solving other problems, but also help carry out heuristic teaching based on discussion and participation on the part of students. A novel teaching approach is a visualized case-based teaching approach (VCBTA), which integrates the latest advances and practice in medicine and health into classroom teaching, and the improvement of English skills of medical students with the cultivation of humanism. Therefore, VCBTA is the innovation of English teaching at tertiary level. As shown in Table 1.
### Table 1. Visualized case-based teaching approach.

| The objectives                                                                 | improve the skills of English for specific purposes, cultivate the scientific quality, develop critical thinking ability and foster humanistic feeling |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| The source of learning contents                                                | Internet                                                                                                                               |
| The form of presentation                                                        | case/event, video, text                                                                                                               |
| The teaching mode                                                               | blended learning + Internet + classroom practice + oral presentation + report + discussion                                             |
| Teaching steps                                                                  | case observation→gist summary→understanding details →significance exploration                                                          |
| The places for learning                                                         | out-class→in-class→in-and out-class                                                                                                    |
| Learning activities and micro-goal                                              | Step1 watching video: audio-visual information and language input, preview of cases/events;                                           |
|                                                                                  | Step2 making gist of the case/event: language output and summary ability training;                                                      |
|                                                                                  | Step3 understanding the detail: information and language input and output, note-taking ability training, and acquiring medical knowledge and concepts involved in cases / events through the Internet; |
|                                                                                  | Step4 exploring and commenting: training English communicative competence at discourse level in the form of writing, oral report, questioning, short passage translation from Chinese to English |

**A Case is Introduced into Medical English Teaching**

Cases have been widely used in the teaching of medicine, economics, business management, law and other disciplines. Compared with the widely used problem-based learning (PBL), the application and research of case-based learning (CBL) approach in English teaching is rare. In fact, CBL is more comprehensive than PBL. A case may involve the cause of the actual event, the developmental process, various influencing factors, results, significance, and so on. However, a problem may be relatively single, and even if several problems are set up for learning, they cannot form a complete case, and the problem itself may be theoretical rather than factual. A case that has actually occurred contains a number of interrelated problems.
In addition, CBL is also in line with evidence-based medical thinking. A case is one or more pieces of evidence, and the problem may exist in the scenario but not in practice. Evidence-based medical thinking requires thinking and decision-making to proceed from reality and be based on factual evidence rather than some ideas or claims.

Furthermore, case-based learning accords with the cognitive process from practice to theory and then from theory to practice. Case-based learning is an approach which is student-centered, and by presenting the actual case, it combines the theory with the practice closely, guides the student to discover, analyze and solve the problem. Therefore, the introduction of VCBTA (a visualized case-based teaching approach) in medical English teaching is much more comprehensive than the PBL approach.

**Case-based Teaching Can be Visualized**

The visualization of case-based teaching means a case for teaching is presented by a video. Most of the conventional English learning contents are presented in the form of a printed text, and the input of the language, information and knowledge is mainly through reading the text. The development of information technology has allowed the information and knowledge to be acquired multidimensionally. A case or an event presented through a video with sound, images, color, text and other forms in a well-organized combination, is more highly visual and more vivid than a single text form. Using a visualized case in teaching ESP in a classroom is more attractive because it meets the students’ needs for acquiring information and knowledge in a multidimensional way.

Visualized learning is also multitasking, a way to process information simultaneously in language learning. Multitasking means that more than one thing is handled at one time and more things are done as much as possible over a certain period of time. In visualized case-based learning, English learners watch the video, listen to the language and read the text simultaneously, while their brain processes the information in the form of “sound-image-character” in different brain areas, giving continuous responses and feedbacks. Because the visualized information is dynamic and the information flow is continuous, the brain is required to be more responsive to the dynamic image and language and to process them more quickly; therefore it is more challenging than merely reading the static text.

**Blended Learning is Practiced**

Blended learning here refers to blending the learning resources, the learning environment and the learning approach. The learning resources of English for medical purposes consist of medical and health video cases from the Internet, written materials and language exercises. Medical and health cases are concerned with the specific knowledge and subject matters, which also need to be acquired through access to the Internet. The learning environment and the learning approach are no longer limited to the teaching in the classroom. Pre-and post-class sessions are used by learners for autonomous previewing, learning or reviewing. All the learning activities are student-centered, whether they are pre-class language acquisition, video previewing, in-class case observation, gists summary, the detailed understanding, the oral presentation, questioning, discussions or post-class medical knowledge acquisition, the concept and the meaning exploration after class. Such a student-and-activity centered blended learning approach aims to encourage students to learn in an active, autonomous and personalized way.
Conclusion

One of the purposes of ESP in medical colleges and universities is to improve the English skills of medical and health professionals. Skills in ESP refer to the listening, reading, speaking, writing and translation skills in English in specialized disciplines. Visualized case-based learning approach can disseminate information in myriad ways from images to sound and texts, thus giving sensory stimulus and creating favorable situations for improving English skills.

The learning activities based on specific cases are not limited to the exploration of professional knowledge only, but are more involved in how to observe problems concerned with life and health from the humanistic point of view, and in analyzing and exploring the implicit social significance of the cases. Visualized case-based learning approach not only puts emphasis on the acquisition of professional knowledge and the improvement of English skills, but also attaches importance to the development of critical thinking and the cultivation of humanism. In this way visualized case-base learning approach in ESP is truly a novel approach to ESP in medical colleges and universities.

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