# Original Paper

# Reflections on English Education for Biomedical

# Undergraduates in China

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#### Abstract

Objective: To explore ways for college students majoring in bio-medicine to improve their English education level. Method: By comprehensively analyzing the current situation and bottleneck issues of English learning and education from the perspectives of English, English educators, English students, and their connections. Result: Chinese biomedical undergraduates and postgraduates need to further improve their English. University English education faces many problems, which require teachers to improve their comprehensive quality and teaching methods. Conclusion: In the triangular relationship between English, English educators and English students, the role of English teachers should be gradually faded, and students' ability and interest in learning English on their own should be cultivated at university. As the wave of globalisation is sweeping the world, learning English well is especially important for college students majoring in biomedicine.

#### Keywords

Bio-medicine, College English education, English for Specific Purposes (ESP)

## 1. Introduction

In secondary school, all students use the same English textbook, and there is basically no great difference in English learning among students. In college, non-English majors still use the same textbook to learn English, although they are from different majors. Many of them are actually reluctant to attend English courses, because they must attend the English course and pass the exam if they want to get the degree. Therefore, many non-English majors do not attend the course out of interest, so the teaching effect of college public English class is often divided into two kinds: one is interest-oriented

and the other is knowledge-oriented. The classroom atmosphere in the former one is active, but students are unlikely to learn much useful knowledge; the atmosphere in the latter one is more boring and duller than the former one. Only a few can gain the knowledge as most of the students do not pay attention to what the teacher is saying in English courses. Generally speaking, the teaching effects of the two ways of education are both unsatisfactory. The main reason is that students are unmotivated to learn English. However, English studying is of great importance to students majored in biology, clinical medicine, medical science, etc., and English has a pivotal role for their future career. In the professional fields, industrial growth is inseparable from the research results of Western English-speaking countries, and some high-quality journals are dominated by Europe and the United States. If students in these majores want to pursue advanced studies, it is indispensable for them to publish foreign language journals with high impact factors. Although there are various means of translation and dissertation editors specializing in polishing journals to help authors translate and polish the articles, it's better for authors to have a good command of English. If so, authors are able to search for the references and browse the websites on their own. In this way, authors can better express their opinions and present their research results. Moreover, international communication and exchanges generally require English as an intermediate language. Those scholars who have professional ability but cannot express them in English face many difficulties and obstacles in the international academic arena. Journals are an important medium of academic communication, and editors of international journals must have a good command of professional English skills.

### 2. Materials and Analyses

In countries where English is not the native language, more attention should be paid to English teaching for biomedical undergraduates.

### 2.1 About English

English has been developed for more than 1400 years. The earliest form of English is a group of West Germanic (Ingvaeonic) dialects, which were brought to Britain by the Anglo-Saxons in the 5th century and are collectively known as old English. Middle English began in the late 11th century with the Norman Conquest of England; in 1476, William Caxton introduced the printing press to England and began publishing the first printed books in London, expanding the influence of the English language. Since the 17th century, modern English has spread around the world under the extensive influence of the United Kingdom and the United States. Through the print and electronic media in these countries, English has gradually become one of the dominant international languages, dominating many regions and specialised fields, such as science, navigation and law. For biomedical students from countries where English is not their native language, many of them face the problem of learning specialized English. The first medical English programme in China was founded by Mr. Shao Xundao at Xi'an University of Medical Sciences in 1987, and began enrolment in 1989 (Liu, 2011). Nowadays, it is common for medical schools in China to offer professional English courses, and medical English

courses are offered in various forms in all 25 medical universities and junior colleges in Jiangsu Province.

#### 2.2 About English Educators

Teachers who teach English are generally called English educators. They include English teachers in schools, in private tutoring institutions, part-time tutoring English teachers, and some parents who are good at English. English educators of biomedicine-related majors are all college English teachers, but the high threshold of the biomedical profession itself has resulted in a relatively weak English language faculty in the biomedical profession. Both quantitatively and qualitatively, there is a huge gap between the effectiveness of English teaching and the real needs of professional English teaching; the curriculum system is single, which is manifested in the lack of orientation of teaching content, and the problems of "what to teach", "how to teach" and "why to teach" are not been clarified fundamentally; the teaching materials are backward, and the openness and novelty of the textbook cannot meet the real requirement.

### 2.3 About English Students

As learning English is a necessity in China, not only students in schools but also adults need to learn it. People in many industries have the need to learn English. For biomedical students, English is an essential tool for academic research. How to enable biomedical students to improve their English while completing their professional courses, many medical colleges and universities are taking stock of their education and seeking innovations. For a long time, the challenge in the development of English majors in medical schools is how to combine medicine and English in order to cultivate talents with advanced academic English skills (Cao, Huang, & Lu, 2016). In order to better develop medical English, Cai (2013) suggests that academic English should be given prominence from the administrative system in the College of Foreign Languages or the Department of Foreign Languages. He said, "It is time to withdraw from the Department of Foreign Languages and the College of Foreign Languages and set up an independent English teaching centre". Even though the English teachers teaching biomedical majors are constantly exploring and improving their teaching methods, there are still some biomedical students who have terrible English performance and cannot pass the College English Test-Level 4 (CET-4), which is a test that the undergraduates of most universities in China must pass before their graduation.

# 2.4 The Triangle Relationship

Some people think that English is actually not difficult, but why do many people fail to learn English well? Some people believe that as the foundation was not laid well when they were young. For instance, they didn't have a good abecedarian, so they don't like English from the very beginning. Students' fear for learning English is likely due to the relationship between the English teacher and the student. For example, the teacher's teaching methods and approaches are not used in the right way or the teacher's restricted English level may all result in students' fear for learning English. The teacher mentioned here is not just the school teacher, but also the parents or English teachers in the children's tutorial class outside the classroom. Even though teachers are trained to teach English professionally and all have

teaching qualifications, it is impossible for them to take care of each child in terms of their learning progress, psychological situation, and the ability to perceive the English language. Therefore, some children cannot find any interest in learning English, and they are afraid of English or even hate it. Regarding the relationship between English teachers, English learners and English language, English learning can be regarded as a bowl of water (see Figure 1).

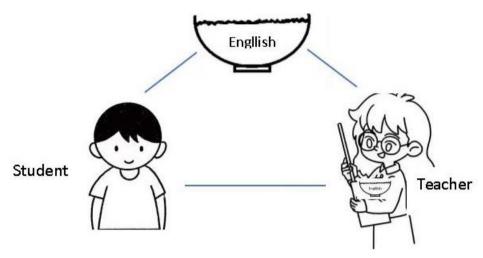


Figure 1. Relationship between English Teachers, English Learners and English Language

Different students have different views on this bowl of water. Some students think it is sweet and are actively willing to taste and swallow it; some can drink it even if they think that it has no flavour, but they will still drink it in order to achieve certain goals; and some think it is bitter and are unwilling to even taste it. English teachers have already drunk the English bowl of water, but how did they drink is a question that few have asked. Perhaps they were forced or perhaps they were willing to drink it. Some teachers work for work's sake, so their attitude is not positive, whereas many other English teachers are genuinely passionate about the language and their teaching career. Thus, they think this bowl of English water is sweet and are willing to teach students so that students really taste the sweet taste of English. In primary school, students primarily rely on English teachers to learn English and get the information. Whereas in colleges, it is impossible for students to learn English better under a spoon-feeding pedagogy. The best way is not forcing students to learn but to get them interested in learning and exploring the language.

In such a triangular relationship, the role of the English teacher is gradually diluted and only plays a guiding role. With the rapid development of the Internet, contemporary college students have a variety of channels to learn English, and information and materials for learning are all over the place. As long as students are motivated and willing to take the bowl of English and drink it, they'll have the ability and opportunity to learn English well. The reason why college students don't learn English well may be that they are not willing to spend more time on learning English. They have certain psychological barriers in learning English and don't know how to learn, why to learn. They learn blindly instead of

efficiently. At this time, if the university students meet an experienced English teacher who is full of enthusiasm and serious about teaching, he or she can help the students remove the psychological barriers to language learning, help the students to find a way to learn English so that these university students who have psychological barriers to English are gradually willing to take the initiative to learn, to explore the language and to use the language. In this way, even after graduation, students will still have the motivation to continue learning without the pressure of exams.

#### 3. Results

For a long time, English education in universities in China has been under the dominance of English for General Purpose (EGP) due to the constraints of the traditional teaching system and mechanism. English teaching in different schools cannot be carried out according to local conditions, and there is a lack of classified and specific guidance. In normal universities and medical universities with biomedical majors, the EGP English curriculum crowds out students' professional English learning time. Students have to spend a lot of time and energy on learning English for general purpose. In the end, English teaching in biomedical professions is not highly relevant to their professional needs (Zhang & Liu, 2011).

Some scholars of English teaching in medical schools have proposed that the focus of English teaching in medical schools should be shifted from General English to English for Specific Purposes, i.e., "ESP" (English for Specific Purposes) medical English teaching. They believe that only by further strengthening the teaching of medical English can there be a substantial breakthrough in the reform of English teaching in medical schools, and a bridge can be built between students' general English proficiency and the English proficiency needed for professional teaching, medical treatment and scientific research practice. Other scholars proposed to transform and upgrade the teaching team, according to Freeman's theory, "environment is everything in the process of foreign language teachers' professional development" (Freeman, 2002). They put forward the theory of "ecological construction" of English education in medical schools, which holds that from the perspective of ecology, the construction and development of teaching teams should be an ecological evolutionary process aiming at promoting the development of teachers in three aspects: profession, academy and personality (Xue, 2013). The construction process of English teaching teams in medical schools should pay special attention to the systematic, organic and balanced nature of team building, start from the construction of team ecological environment, clarify the appropriate ecological position of team organisers and team members, create a good team culture and atmosphere, encourage healthy competition within the team while the team members are "symbiotic", and establish new dynamic competition through positive competition. Through positive competition, a new dynamic and balanced ecological environment is established (Lu, 2017). Some scholars also put forward the concept of CDIO (Conceive, Design, Implement and Operate): combining with the actual situation of medical schools, it is advocated to cultivate students' ability of conceiving, designing, implementing and operating simultaneously in

English teaching, so as to realize the all-round development and progress of their basic English ability, English application ability and medical professional English ability (Li, Xie, Zhang, et al., 2015). There is also a discussion of English teaching in medical schools from the perspective of humanistic quality cultivation (Zhang, 2013), in other words, the deeper the students understand the history, cultural traditions, customs, lifestyles and details of the United Kingdom and the United States, the more they will be able to correctly understand and accurately use these cultural general knowledge (Xu, 2001). Some scholars have also suggested that practice time is the way to improve English language teaching, arguing that students who have more opportunities to practice English tend to learn better than those who do not have the opportunity to use the target language (Mai & Thao, 2002).

#### 4. Discussion

Although many English educators have done a lot of research on teaching models for biomedical undergraduates, Chinese biomedical undergraduates' ability to learn English needs to be improved urgently. In order to further improve the English proficiency of biomedical college students, the author believes that more attention needs to be paid to the students' intrinsic drive in the triangular relationship showed in Figure 1. Educators have been overly researching on educational methods and teaching team building, while paying little attention to the individual students, especially those who are weak in English proficiency. Just as a teacher can deduce many ways to drink from the bowl of English, some students are resistant to English from the bottom of their hearts. So even if there are many ways, students are not interested in it. Relieving students' psychological barriers to learning English and cultivating their interest in English prompt them to discover the joy of English, increase their confidence in learning English so that students will be willing to savor learn English. As suggested above, the role of the English teacher in the triangular relationship should be gradually faded, and college students today should have a more conscious and stronger ability to learn English, which is especially important for college students majoring in biomedical sciences.

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