Effects of ESP Courses on Chinese Health Vocational College Students' English Proficiency

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Abstract

This study investigated the effects of ESP teaching of medical English on the English proficiency of Chinese medical major students. A content-based language instruction was given to the experimental group while the control group was taught on the basis of traditional grammar-translation method. Both groups were freshmen majoring in clinical nursing and were in the second semester of their college learning.

The findings showed that the content-based ESP course was significantly effective for the students when it came to improving their English proficiency. Compared with the grammar-translation method, it manifested a more significant advantage in improving the students’ listening and speaking abilities. However, the grammar-translation method was proved to be more beneficial in improving students’ writing ability. Moreover, content-based ESP learning didn’t have a more significant effect on students’ reading performance in comparison with the grammar-translation method. Additionally, the survey results revealed that content-based ESP learning was more beneficial to the students in developing their professional communication skills, increasing their English speaking opportunities, giving them confidence in using English, and providing them with a better understanding of unit topics. However, the interview results showed that students experienced some difficulty concerning group discussions or impromptu speeches. In particular, low-level students perceived that speaking in English was uncomfortable and required an unexpected amount of preparation time. ESP learning looks promising, but it is necessary for us to apply a different teaching method according to the students’ proficiency levels and for the skills that they acquire.

Key Words: College English, English for Specific Purposes, English for General Purposes, English for Medical Purposes, Content-based Instruction
1. Introduction

English teaching for Chinese college students in China have been under the heavy influence of English as General Purposes (EGP) approach for a long time, resulting in the dominant position of grammar-translation method (Cai, 2014). College English in China is still regarded as an EGP course to impart basic language knowledge and skills, and the result is that the teaching puts a strong emphasis on the breadth of general knowledge with weak pertinence on disciplinary or professional knowledge. Therefore, a large amount of class time has been spent in explaining grammar, discriminating words and phrases, paraphrasing text contents and translating them into Chinese. In a recent decade, several researchers have begun to argue that traditional college English teaching is far from meeting the needs of training Chinese medical personnel with good command of professional skills as well as a high level of English proficiency, especially for medical English teaching in health vocational colleges (Liu, Wei & Li, 2008; Wang, 2017; Zhang, 2011).

Several Chinese scholars (Cai, 2014, 2018, 2019; Wang, 2018; Ye, 2011, 2017) have turned their attention to an English for Specific Purposes (ESP). For example, Su (2002) indicated that an ESP course is more closely related to specific disciplines and occupations, which enables students to use English as a medium in order to accomplish their communicative tasks and to solve specific problems in the authentic target situations. Some scholars in South Korea also argued that an ESP course is more needed than an EGP course in order for students to achieve practical objectives such as utilizing authentic English or obtaining jobs (Kim, 2005; Seong, Chang & Kim, 2007; Suh, 1990).

ESP may possess a significant practical value for medical major students from health vocational colleges, whose goal of learning English is for further development of their future professional careers. Thus, the employment of ESP into general English courses is expected to be advantageous to their improvement of English proficiency as well as to their language application ability in their workplace. The purpose of this research is to investigate the effect of ESP teaching of medical English on health vocational college students’ English proficiency. The research questions are addressed as follows:

1. What are the effects of ESP courses with different teaching modes on health vocational college students’ English proficiency?
2. How do health vocational college students perceive the content-based ESP course?

2. Literature Review

2.1. Definitions of ESP

In the 1960s, the famous linguist Michael A. K. Halliday co-authored and published The Linguistic Science and Language Teaching (1965). This book, for the first time, put forward the term English for Specific Purposes (ESP). Its original text is “English for civil servants; for policemen; for officials of the law; for dispensers and nurses; for specialists in agriculture; for engineers and fitters” (Halliday, McIntosh, Strevens, 1965, p.190). Since its inception, ESP has gone through more than 50 years of history. Up to now, it has formed a complete set of theoretical systems and branched into a variety of categories. However, since ESP covers a wide range and has a rich connotation, different linguists hold different views on it, resulting in the lack of a consistent academic definition. The following are several representative viewpoints from western linguistic circles.

According to Hutchinson and Waters (1987), “ESP, then is an approach to language teaching in which all decisions as to content and method are based on the learners’ reason for learning” (p.19). This definition highlighted four essential factors of ESP: “approach”, “content”, “method” and “reason”.

Focusing on the correspondence between ESP and EGP in English teaching, Strevens (1988) believed that “ESP is a division of English language teaching , and the only
other member of which is English for General Purpose” (p.42). According to Strevens, ESP contains four “absolute characteristics: i) Its curriculum must meet the special needs of students; ii) Its course content must be related to some specific disciplines, professions, and activities; iii) Its emphasis should be on making syntactic, lexical, textual, and semantic structures applicable for language use in specific situations. iv) It should be in sharp contrast with English for General Purpose.

Robinson (1991) placed ESP in a macro educational context and defined it as “an enterprise involving education, training, and practice, and drawing upon three major realms of knowledge: language, pedagogy, and the students’/participants’ specialist area of interest” (p.1). She also believed that ESP, as a course, should have the following characteristics: i) ESP is goal oriented, which means students learn English to meet their needs in study or work. ii) ESP courses should be based on needs analysis. iii) ESP courses are mainly designed for adults. iv) ESP courses may have written rules. v) ESP courses should involve both specialized English (especially technical terms) and subject content. vi) ESP courses should be designed to take into account the needs of work or study as well as the personal preferences of a specific group of students.

By and large, the above viewpoints from the influential ESP scholars may reveal some significant clues to understand the essence of ESP, that is, ESP can be regarded as a system of English teaching (i.e., approach) with regard to specific materials (i.e., content) and specific methodology (i.e., method), aiming at satisfying learners’ purposes of language learning (i.e., reason or needs).

ESP can be categorized in many ways, but one of widely acceptable categorization is the “dichotomy” proposed by Jordan (1997, see Figure 1). This categorization is based on the learner’s ultimate purposes of language use and language context. Its uniqueness lies in the further refinement of academic English into ESAP (English for Specific Academic Purposes) and EGAP (English for General Academic Purposes).

According to the above categorization, ESP differs from EGP in that it aims to meet learners’ diversified needs in learning English. However, the diversification of learning needs will inevitably lead to the diversification of course content and the differentiation of teaching methods.

2.2. ESP Research

Several researchers addressed the necessities of ESP courses in college contexts and initialized on the basis of content-based instruction (CBI). Gu (2011) believed that ESP could use CBI teaching model, and the theme-based instruction could enable truly student-centered ESP education. Through compare and contrast analysis, he found that the teaching concept of CBI has strong guiding significance for the development of ESP courses in Chinese technical vocational college settings, thereby proposing a new teaching mode in which the language course is implemented in line with the content of specialty course. It is required that language teachers should not only be
familiar with the relevant knowledge and content of the specialty courses but also closely cooperate with the specialty teacher.

One of the most representative studies in recent years is Yang (2021)’s empirical study, which proved that the effective melt of content and language could fuel students’ language learning motivation. Yang specified how Stoller’s 6-Ts Approach, the first thematic framework for theme-based instruction, is applied in the course of English for Science and Technology. By means of a questionnaire survey on 117 college students majoring in science and technology, 34.2% of them responded “Very Satisfied” followed by 61.5% “Satisfied”. Besides, 96.6% of the students believed that CBI could help improve their interest of learning English for Science and Technology (EST). Ninety-seven point four percent thought that CBI is conductive to improving their EST knowledge and skills.

Chen (2015) believed that when ESP teaching mode was implemented in the teaching of nursing English, the teachers might encounter the difficulty of transforming from “explicit” to “implicit” language teaching. One way she proposed as a countermeasure was to specify the present EMP course according to the professional areas of clinical medicine, stomatology, nursing, midwifery, pharmacy, laboratory test, medical imaging, ophthalmology, and optometry technology, dental technology, rehabilitation technology. Each of these disciplines was undertaken by its correspondent specialty teachers by means of bilingual education. The focus of bilingual teaching is on terminology, key concepts, and medical cases. Her survey results indicated that around 5% ~ 10% of the class hours for each specialty lesson could be employed bilingually to explain and paraphrase the key medical words as well as introduce typical medical cases.

Liu (2019) claimed that the feasibility of applying CBI in the teaching of ESP courses might be challenged by students’ current English proficiency, especially by their weak foundation in listening and speaking. He suggested that for ESP teaching in current agricultural colleges, scaffolding teaching and cooperative learning might serve as a better way than CBI since they were expected to provide students with more comprehensible input.

According to Shi and Liu (2011), the integration of subject knowledge and bilingual course in the classroom teaching is more likely to enable students to grasp the concepts, theories, and methods of the subject in both languages and establish bilingual thoughts and expressive modes. One more example is from Yang and Zhao (2011), who explore the influence of CBI on the bilingual critical thinking ability of English majors. The treatment is one semester of the International Trade Practice bilingual course based on CBI. The post-test results showed that the experimental group (42 students) displayed better changes in critical cognitive ability ($t = 2.637$, $p < 0.05$), meta-critical ability ($t = 2.512$, $p < 0.05$) and affective critical traits ($t = 2.530$, $p < 0.05$) than the control group (43 students).

By means of classroom observation in the setting of a tourism vocational college, Yang and Zhao (2021) found that the use of information technology in CBI teaching of tourism English may increase the difficulty of classroom management, distract students’ attention and enhance the frequency of plagiarism. The semi-structured interview of 6 tourism English teachers revealed that in the teaching of English applied writing, they all face greater difficulty in focusing students attention, handling network and computer malfunction, and offering timely feedback and guidance. However, they also admitted that information technology has many advantages in stimulating students’ interest, cultivating their creative writing ability, and supporting their language learning with huge resources.

The previous research showed conflict results on the effect of ESP teaching on the students’ English. Overall, content-based instruction is complementary to ESP courses, and the ESP teaching model could meet the needs of specialty learning as well as the needs of disciplinary development. However, ESP courses may not appropriate for the students because of their low English proficiency, especially in their listening and speaking performances.
3. Method

3.1. Participants

In this research, 106 students who were majoring in clinical nursing, were selected from two intact freshmen classes (54 from nursing class 1 and 52 from nursing class 2), Neijiang Health Vocational College (NHVC), Sichuan Province, China. As is shown in Table 1, they were all in the second semester of their college learning, before which they had finished the 1st grade EGP learning. In this semester, they were taking the elementary EMP course, after which Medical English Test (Level 1) was employed as an assessment instrument to test their English language proficiency in the target situation as medical personnel.

Nursing class 1 was randomly selected as the experimental class, who received the ESP teaching, while class 2 as the control group who was treated with a traditional grammar-translation mode. The participants of both groups shared similar economic, educational, and social backgrounds. This is because that in western China the English education in the primary and secondary school stages adopts unified English teaching materials and syllabus (i.e., nationally compiled materials and syllabus by the Ministry of Education of China). Besides, the majority of vocational college students in western China come from rural areas, in which their learning characteristics and environments, as well as their exposure to English language, were quite the similar.

In order to check the equality of means between groups, an independent samples t-test was used to compare the pre-test scores of both groups. The result showed that in the pre-test, the mean of the experiment group was 65.33 and that of the control group was 67.69, and the English proficiency score of the control group was slightly higher than that of the experiment group. However, there was no significant mean difference between two groups (t = -1.846, p = 0.068). It can be inferred that both groups were almost at the same level of English proficiency before receiving the treatment.

3.2. Materials and Instruction Methods for Treatments

To begin with, a questionnaire survey for needs analysis had been conducted with 100 medical students in a health vocational college in Sichuan Province, China in advance, in order to analyze medical students’ academic and occupational needs in learning EMP course (i.e. English for Medical Purposes). The academic needs analysis had focused on students’ needs of learning EMP in the classroom, while the occupational needs analysis had examined their expectations of using EMP in future workplace. Based on the results of needs analysis, an ESP-CBI integrated teaching mode was developed in contrast to current grammar-translation method. This experiment was designed to verify the effect of the ESP-CBI integrated teaching on the health vocational college students’ English proficiency.

The course textbook used in this study was English for Clinical Medicine and Nursing (Wang Yi-ping, 2010) compiled specifically for medical major students in Chinese vocational colleges. It was published in the year of 2010 (and reprinted in 2019) by Higher Education Press.

<table>
<thead>
<tr>
<th>(Table 1) General Information of the Participants</th>
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<tbody>
<tr>
<td><strong>Experimental Group</strong></td>
</tr>
<tr>
<td>Number of Participants: 54 students</td>
</tr>
<tr>
<td>Major: Clinical nursing</td>
</tr>
<tr>
<td>Gender: 47 Female / 7 Male</td>
</tr>
<tr>
<td>Mean score of Pre-test: 65.33</td>
</tr>
<tr>
<td>Instructional Methods: Content-based instruction</td>
</tr>
<tr>
<td>Instructional Materials: The Course Book of English for Clinical Medicine and Nursing</td>
</tr>
<tr>
<td>Course Period: A total of 16 weeks, 4 class hours (45 minutes × 4) each week.</td>
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<tr>
<td><strong>Control Group</strong></td>
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<tr>
<td>Number of Participants: 52 students</td>
</tr>
<tr>
<td>Major: Clinical nursing</td>
</tr>
<tr>
<td>Gender: 47 Female / 5 Male</td>
</tr>
<tr>
<td>Mean score of Pre-test: 67.69</td>
</tr>
<tr>
<td>Instructional Methods: Grammar-translation method</td>
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<td>Instructional Materials:</td>
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textbook is comprised of 10 units, each of which has four modules: Dialogues, Reading Passage, Applied Writing, and Related Cultural Information. The given class hours for this course book are 64 in total within one semester, during which each unit has 16 class hours, and each hour lasts for 45 minutes. The whole program is expected to be finished within 16 weeks (i.e., one semester).

The control group was treated with a traditional grammar-translation method, in which language was taught explicitly and students mainly focused their attention on the forms rather than the disciplinary contents.

As is shown in Figure 2, the teaching procedure of each unit (16 class hours in total) strictly followed the order of Warm-up (Introducing unit themes and topics; 1 class hour) → Vocabulary and Expressions (Focusing students’ attention on medical terminology and its word formation; 1 class hour) → Dialogue (Listening, role-playing and oral practice of the dialogues in a simulated situation; 3 class hours) → Reading Comprehension (Pre-reading /While-reading /Post-reading activities focusing on the key words and sentence patterns in the text; 3 class hours) → Grammar (Explanation with repeated drills and practice; 3 class hours) → Translation (Sentence translation practice of English to Chinese and Chinese to English; 3 class hours) → Homework/Assignment (2 class hours).

Meanwhile, the experimental group was taught with a theme-based language instruction from CBI model, in which language learning was integrated into the disciplinary content. In this mode, it is the content that dominates language teaching so that language is acquired implicitly as the “by-product” of learning content.

In order for the students to achieve organic integration of content and language, the teaching procedure was designed in combination with the “6-T” method proposed by Stoller (1997). “6-T” refers to a coherent procedure comprised of themes, texts, topics, threads, tasks, and transitions, which aims at organic integration of content and language (p.78-94), as shown in Figure 3.

“Theme” refers to the main idea running through the whole curriculum setting. The teacher establishes connections
(i.e. threads) among a variety of themes in the course book so as to form a thematic integrity. “Text”, in a broad sense, is the content constituted by reading materials, audio/visual materials, and the materials for oral practice. “Topic” is the reflection of the theme as well as its further extension, through which an exploration of the theme on a deeper level is fulfilled on the basis of content. “Thread” establishes connections for above themes, so as to form thematic integrity. “Task” is in close relation to language acquisition and classroom activities, such as the teaching of vocabulary, analysis of language and discourse structure, training of communicative skills, acquisition of learning skills and language skills, etc. “Transition” refers to a natural transformation of several topics within a single theme.

Being different from the grammar-translation method, the 1st step of the CBI based ESP teaching mode is Seeking Threads, in which the teacher establishes connections (i.e. threads) among a variety of themes (i.e. academic, occupational and humanistic themes) in each unit on the basis of Given Syllabus, so as to form a thematic integrity. This is usually achieved in Warm-up (Brainstorming about the unit themes, 1 class hour) by presenting PPT, pictures, and video clips and organizing discussions in groups or in pairs.

Based on the teaching objectives of each unit, the following session is Identifying Themes, in which the themes of each unit are categorized as “Academic Themes”, “Occupational Themes”, and “Humanistic Themes”. This is also achieved in Warm-up (Lead-in of new lesson, 1 class hour) by having students analyze and clarify their needs of learning EMP (i.e. academic needs) and using EMP in their future workplaces (i.e. occupational needs).

The 3rd step is Developing Topics. The topic serves as the sub-themes of above categories and helps to achieve a further exploration of the theme on a deeper level. In the session of Vocabulary and Dialogue (3 class hours in total), the teacher focuses students’ attentions on medical terminology and specialized genres of a variety of medical discourses (1 class hour), followed by specialized situational context of authentic medical workplaces (1 class hour) and the issue of medical humanities, personal ethics, and professional ethics (1 class hour).

Having finished the above procedure, the most crucial step is Analyzing Texts and Design Tasks. Students are encouraged to analyze the text through autonomous exploration of the features of EMP genres (2 class hours) and how EMP is used in the authentic medical workplaces (2 class hours), as well as the issues of medical ethics involved in the current unit (2 class hours). Then, based on the results of text analysis and the questions presupposed by students themselves, the classroom activities are arranged in the order of Pre-task (Teacher’s lead-in of tasks on the basis of unit topics by introducing topic and group discussion, 1 class hours), Task Cycle (Students’ performance of assigned tasks on the basis of task chain for each group by reporting their completion of tasks and sharing the results with other groups, 3 class hours), and Language Focus (Focus students’ attention back to the language itself, 2 class hours).

These tasks are crucial to balance the relationship between language and content, through which EMP instruction can move back and forth within the continuum of “content-driven” model and “language-driven” model.

3.3. Instrument

The pre- and post-tests were given to both the experimental and control groups. Both tests were selected from the bank of Medical English Test System Level 1 (METS-1). The pre-test was to identify students’ English proficiency at the beginning of the new semester (i.e., the homogeneity of both groups before receiving the experiment treatment). On the other hand, the post-test was to check the effectiveness of the experiment (i.e., the validity of ESP-CBI integrated teaching mode compared with grammar-translation method). Both test papers were composed of listening, reading, writing, and speaking. The perfect score is 100, in which the reading section accounts for 30%, followed by writing (25%), speaking (25%), and listening (20%). As for the Cronbach alpha coefficients
of the pre- and post tests ranged from 0.714 to 0.818, indicating that the internal consistency of pre- and post test items was moderately high.

Besides, the post-experiment questionnaire was given to the experiment group in order to investigate the students’ perceptions of the content-based ESP teaching in medical English learning. The post-experiment questionnaire was developed and adapted on the basis of the ESP analytical models proposed by Hutchinson and Waters (1987, p. 59). The Cronbach alpha coefficient was 0.890, which showed that the internal consistency of the questionnaire items was high enough to measure their perceptions on their ESP class. Also, verbal reports from the 16 students’ interviews were presented in order to identify their actual reactions toward the CBI-based ESP learning.

3.4. Data Analysis

For this research, pre- and post-tests were administered to experimental class and control class. All the data collected from the pre- and post-tests were analyzed by t-tests. An independent samples t-test was used to examine the effects of treatment (i.e. the CBI-based ESP teaching mode) on the students’ English proficiency (i.e. students’ listening, reading, writing, and speaking performance) by comparing the scores of experimental and control group in pre- and post-test.

As for the qualitative data analysis, the frequencies and percentages of each option were presented. The recorded verbal data were also transcribed and used as a supplement to gain further insights into the students’ perceptions of ESP learning.

4. Results and Discussions

4.1. Effects of ESP Courses on Students’ English Proficiency

This study examined the effects of two different ESP teaching modes on health vocational students’ English proficiency.

As shown in Table 2, the post-test scores from both experiment group and control group were respectively 71.18 and 67.48, and the t-test results showed that there was a significant mean difference between two groups ($t = 2.518$, $p = 0.033$), indicating the students in the experiment group performed better that the ones in the control group.

Since there was a statistical mean difference in the overall English proficiency score, this study needed to confirm that in what aspects and to what extent the ESP teaching can benefit the students’ English learning.

In other words, this research investigated if there were any significant differences in the students’ English listening, reading, writing, and speaking performances with regard to a traditional grammar-translation method and a content-based teaching mode. To do this, the mean scores of the experiment group in the post-test were compared with those of the control group on the basis of each learning skill. Tables 3 and 4 shows the data of post-test comparison between experiment group and control group.

### Table 2 Independent Samples T-test Results

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Post-test Scores</th>
<th>t value</th>
<th>df</th>
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<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Exp.</td>
<td>54</td>
<td>71.18</td>
<td>10.29</td>
<td>2.158</td>
</tr>
<tr>
<td>Con.</td>
<td>52</td>
<td>67.48</td>
<td>7.00</td>
<td>2.158</td>
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</table>

### Table 3 Descriptive Statistics of Post-test Sub-skills

<table>
<thead>
<tr>
<th></th>
<th>Experimental Group (N=54)</th>
<th>Control Group (N=52)</th>
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<tbody>
<tr>
<td>Top Score</td>
<td>20 30 25 25</td>
<td>20 30 25 25</td>
</tr>
<tr>
<td>Mean</td>
<td>14.37 20.55 16.90 19.38</td>
<td>12.94 20.01 18.38 16.11</td>
</tr>
<tr>
<td>SD</td>
<td>2.65 3.91 2.56 2.82</td>
<td>2.51 2.65 1.69 2.47</td>
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listening test, the mean score of the experiment group was 14.37 in the post-test, while that of the control group was 12.94. The \( t \) value was -2.842 and \( p \) was 0.005 (\( p < 0.05 \)), implying that there was a significant difference between two groups and the English proficiency of the experiment group outperformed that of the control group after receiving the experiment treatment (i.e., a 16 weeks’ EMP course implemented by ESP-CBI Integrated Teaching).

In the reading test, the mean score of the experiment group was 20.55 and the mean score for control group was 20.01. The \( t \) value was -0.828 and \( p \) was 0.410, which was higher than the alpha decision level 0.01. These data indicated that there was no significant difference between two groups in the post-reading test, and the experiment treatment had no significant effect on the students’ English proficiency compared with traditional teaching method (i.e. grammar-translation method).

As for the writing test, the mean score of the experiment group (\( M = 16.90 \)) was lower than that of the control group (\( M = 18.38 \)). The \( t \) value was 3.512 and the \( p \) was 0.001 (\( p < 0.01 \)). This manifests a significant difference between the two groups in the post-writing test, which means that the experiment group’s writing ability was lower than that of the control group after the experiment. So, the grammar-translation method was proved to be more beneficial in improving health vocational students’ writing ability than the CBI teaching mode.

In the speaking test, the mean score of the experiment group (\( M = 19.38 \)) was 3.27 points higher than that of the control group (\( M = 16.11 \)). The value of \( t \)-test (-6.341) and \( p \) (0.000) shows that there was a very significant difference between the two groups in the post-speaking test. In other words, the content-based ESP teaching manifests a more significant advantage in improving the students’ speaking performance than the grammar-translation teaching.

To sum up, after having received 16 weeks’ English course with different teaching methods, the students in the experiment group have outperformed better than the control group in their listening and speaking. In other words, the content-based ESP course manifests a more significant advantage in improving health vocational college students’ listening and speaking performances than grammar-translation method. However, the grammar-translation teaching was proved to be more beneficial in improving the students’ writing ability. Besides, the content-based ESP teaching had no significant effect on health vocational college students’ reading performance compared with the grammar-translation method.

### 4.2. Students’ Perceptions on the Content-based ESP Course

To examine how students perceived the content-based ESP learning, five items were given to the experiment group asking them to judge how much they had more opportunities of using English in the classroom, how much stronger confidence in their spoken English they had, if they had a better understanding of unit themes, if they got more professional confidence from learning tasks and activities. According to Table 5, over 60% of the students responded positively their increased opportunities of using English in the classroom, how much stronger confidence in their spoken English they had, if they had a better understanding of unit themes, if they got more professional confidence from learning tasks and activities. According to Table 5, over 60% of the students responded positively their increased opportunities of using English in the classroom. Similarly, 66.6% of the students responded “agree” (51.8%) and “strongly agree” (14.8%) on their increased confidence in spoken English. 57.3% of the students perceived that the CBI-based ESP teaching was good enough to have a better understanding of unit themes.

In response to the learning tasks and activities, 57.3% of the students believed that the activities were helpful to cultivate their professional communicative competence. 72.1% of the students (48.1% “agree”, 24.0% “strongly agree”) also perceived the helpfulness of these learning activities and tasks in understanding medical literature,
writing research papers, and participating in lectures conducted in English.

From the health vocational college students’ responses, more than half of the students perceived the content-based ESP teaching as a more advantageous and satisfactory teaching mode in cultivating their professional communicative competence and giving them more opportunities of using English, stronger confidence of spoken English and a better understanding of unit themes.

Sixteen students also participated in the semi-structured interview to listen to their perceptions on the content-based ESP course that they had. Overall, interviewees addressed the positive and negative points about the ESP learning. They felt that they had gained a better understanding of the ESP course, which was quite different from their previous English course, which easily characterized by grammar-translation method. Some students, especially in the high level group, claimed that a salient weak point of grammar-translation method was that they may find it not so useful to learn English because of its separation from the practical situation of human communication.

Student 1: “When I was involved in these class activities, I could perceive a close connection between EMP and my future profession. Especially, group activities helped me improving my English speaking skill.”

Student 7: “I enjoy the atmosphere created by the new teaching mode, through which I found it not so difficult to use English for academic or occupational purposes. The grammar-translation...
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was really boring and not helpful to my future career.”

Student 15: “I think I have benefited a lot from this new teaching mode. However, it took me too much time to prepare for the task-oriented activities with my classmates or partners, resulting in the ignorance of other important contents.”

Some students pointed out problems about the group work. Students 3 and 8 were often left alone, chaotic and noisy state in the classroom during group discussion.

Student 3: “During the group work, there were some fast and loud talkers who always dominated the discussion, leaving us in an embarrassed silence.”

Student 8: “I am quite a shy and silent person. The group discussion was sometimes noisy and chaotic, which made it hard for me to concentrate and clear my thoughts.”

Some students, like Students 4 and 5, didn't have enough time for notes-taking and independent thinking because of impromptu learning tasks.

Student 4: “The class hour for task completion was so compressed that I didn’t have enough time to take notes or think of strategies.”

Student 5: “Every time it was my round to speak or make an oral report, I would become nervous or be overwhelmed by these impromptu tasks.”

Students 11, 12, and 13 felt that more explicit instruction on grammar and vocabulary is indeed necessary.

Student 11: “Frankly speaking, I perceived little changes in my English proficiency. Maybe traditional teaching is somehow more appropriate for a slow-witted person like me. What I really want is a timely response from my teacher.”

Student 12: “I am interested in the word formation of medical terminologies because of its historic Latin and Greek origin. What is more, I hope to receive more explicit teaching of these medical words before we get down to doing our tasks.”

Student 13: “I don’t like the procedure of the new teaching mode in that my poor English proficiency didn’t allow me to do autonomous learning without teacher’s guidance and immediate feedback. Besides, those important linguistic features characterized by EMP should be taught explicitly with more given class hours.”

The students perceived that the CBI-based ESP course enabled them to know how to integrate English language ability and medical professional competence in an authentic academic or occupational context. However, several possible suggestions could be made to improve the CBI-based ESP teaching mode. Teachers should give the students immediate and constant feedbacks, proper allocation of class hours for different activities, well-ordered group discussions, adequate time for preparation before communicative tasks, relaxed environment for introvert students to lower their anxiety and a flexible use of teaching method to balance the needs of students between implicit and explicit instruction.

5. Conclusions

Since very few studies have investigated whether ESP learning is influential, especially in the context of health vocational colleges, this study examined if the ESP learning was beneficial to the Chinese vocational college students. The findings showed that the content-based instruction course was significantly effective for the students.
to improve their English proficiency, compared with the course employed by grammar-translation method. It manifested a more significant advantage in improving students’ listening and speaking performances. However, the grammar-translation method was proved to be more beneficial in improving students’ writing ability. Besides, the ESP learning didn’t have a more significant effect on students’ reading performance in than the grammar-translation method.

The findings of the qualitative data showed that most of the students in the experiment group perceived the CBI-based ESP learning to be more advantageous and satisfactory. They felt that it was good for them to cultivate their professional communicative competence and give them more opportunities of using English, stronger confidence in speaking English and a better understanding of unit themes. Likewise, they perceived significant improvement in terms of their English listening, speaking, reading, and writing abilities even though the quantitative data showed statistical improvements in listening and speaking areas.

In addition, according to the data from students’ interviews, some noticeable problems existed. Teachers failed to offer constant feedback on students’ task performance and students (especially from the low level group) increased anxiety during group discussions and impromptu speeches.

Some important pedagogical implications can be obtained from the findings of the study. Generally speaking, the result of the teaching experiment proved that the content-based instruction has some incomparable advantages over traditional grammar-translation method in teaching medical English course, especially in improving health vocational students’ listening and speaking performances. However, in cultivating their writing and reading abilities, grammar-translation method should be prudently employed to help students, especially low level students whose English proficiency has not yet reached the “threshold level”. They might need more explicit instruction and simpler processes in English classrooms. Future research should examine the interaction effect between the ESP learning and students’ proficiency levels on their English reading and writing performances.

The other pedagogical implication includes the development of English for Medical Purpose (EMP) teachers’ training programs. In order to ensure successful innovation and reform of EMP teaching in Chinese health vocational colleges, it’s a must to develop an effective and systematic teacher training program. Besides, medical colleges and universities should establish a specialized EMP organization, like liberal arts education organization council, for the teaching and research of medical English.

In spite of the ideas and methods presented in this study which may be helpful for EMP teaching reform and innovation in Chinese health vocational colleges, the findings of the study may be limited as a result of its short experimental period (16 weeks) and a small amount of samples (N=106). So, it is earnestly hoped that future research can proceed much further by conducting experiments with larger scale samples and longer exposure to the treatment.

References
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Effects of ESP Courses on Chinese Health Vocational College Students’ English Proficiency


ESP 수업이 중국 보건 전문대학생의 영어 능력에 미치는 영향

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초록

본 연구는 중국 쓰촨성 보건직업대학 간호학과 학생들을 대상으로 의학목적의 영어교수습이 학생들의 영어능력에 미치는 영향을 조사하였다. 이를 위해 임상간호를 전공하는 106명의 두 그룹으로 나뉘어 연구에 참여하였다. 실험집단은 의학용영어를 내용기반으로 학습하게 하고 통제집단은 문법-번역식으로 학습하였다. 실험 결과에 따르면 내용기반 ESP 교육은 학생들이 영어 실력을 향상시키는 데 상당히 효과적이라는 것을 보여주었다. 문법 번역 방법과 비교할 때, 내용기반 ESP수업은 학생들의 듣기와 말하기 능력을 향상시키는 데 더 중요한 이점을 나타냈다. 그러나 문법 번역 방법은 학생들의 적응 능력을 향상시키는 데 더 유익한 것으로 입증되었다. 또한 내용기반 ESP 학습이 문법-번역식 학습에 비해 학생들의 임기 능력에 유의한 영향을 미치지 않았다. 또한 설문 조사결과 학생들은 내용기반 ESP 교육이 학생들의 전문적인 의사소통 능력을 기우고 영어 사용 기회를 늘리고 영어 사용에 대한 자신감이 주어, 단원 주제에 대한 더 나은 이해를 제공하는 데보다 유리하지만 인터뷰 결과를 살펴보면 학생들이 그룹토론이나 영어로 말하는 것에 불안감을 느끼고 어려워하는 것을 알 수 있었다. 특히 영어수준이 낮은 학생들은 영어로 말하는 것이 불편하고 이상지 못한 준비 시간이 필요하다고 인식했다. ESP 수업을 실시할 때 학생들의 언어수준과 학습영역에 따른 다른 교수방법의 적용이 필요하다.

주제어: 대학 영어, 특수목적 영어, 일반목적 영어, 의학목적 영어, 내용중심 교수법