



The Practice of Content-Based Academic English Instruction Among Graduate Students of Non-English Major

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Abstract. English is a compulsory course for all graduate students in China. In the highest stage of education, students have strong demands of using English as a tool in their academic study and research. Based on theories of content-based instruction and English for academic purpose, the author puts forward a model of content-based academic English instruction which is summarized as “literature study + academic corpus building + classroom presentation and discussion + paper review writing”. In this model, students as the center of the English classroom are required to carry out a series of tasks to study academically specialized knowledge independently and cooperatively. In such a classroom, graduate students use English as a tool to study literature and to do research in their academic fields through which their motivation is stimulated, their research ability is cultivated, and their English competence is developed. The examination and evaluation approaches are also suggested in this article.

Keywords: Content-based instruction · Academic English · Graduate students

1 Background

Graduate education in colleges and universities is the main source for high-level professionals in China, and graduate students, as advanced learners, will become experts and key talents in various professional fields after graduation. In order to cultivate them in adaptation to the requirements of the globalized world and to help them seize the opportunity for future jobs and researches, English education is the compulsory course for all graduate students in China. Then for all graduate English instructors, how to teach and what to teach, are problems they must face. In graduate education, English course should aim at improving student ability of using English in academic research and international academic communication. Then English academic content of specialized fields can be used as materials of the class, and teaching students to learn them should be an approach for training qualified talents in the globalized world.

However, there are a variety of problems in English instruction for graduate students. (1) Most of the English class is based on texts irrelevant to students’ needs and focuses on the explanation of English words and grammatical structures they have learned through secondary and undergraduate English classrooms. Such methods of

instruction deviate from the essence of language as a communicative tool. Moreover, the teaching materials are far from meeting the needs of graduate students for English. In graduate programs, students' demand for English has changed from learning language skills to the use of English in their academic study. In the university setting, they are frequently required to use English in academic study and research in their specialized fields.

CAI [1–3] pointed out that language learning is more of the learning of meaning than of the structure. Although the pattern of a language is necessary, after mastering certain rules and vocabulary, and after reaching a certain level, it is necessary to improve language ability through knowledge learning. Hence, English learning based on academic content is necessary in university settings. Shu [4] believes that in China, the priority of English instruction should serve for the global communication. In graduate phase, students should use English as a tool to learn subject matter, to cultivate their academic capacity and communication skills. English is not to learn to communicate, but should learn in communication. Liu [5] points out that in senior grades of college, English learning should shift from skill learning to content learning, and content should be used to attract students so that they could acquire language in such a learning process.

The ultimate goal of English learning is to acquire more knowledge through the language and to conduct international cooperation and communication. In the elementary and secondary phases of English learning, language skill courses can improve students' English and lay a foundation for their future use of English. However, in postgraduate education, English instruction should center on the content, namely, the discipline-based academic materials. In this way, students can acquire more English and cultivate cross-cultural communicative competence in the process of learning subject knowledge and improving academic ability by using English as a tool.

2 Concepts of Content - Based Instruction and English for Academic Purpose

Content Based Instruction (CBI) refers to the teaching of the content or materials of a field in the target language, enabling students to acquire the language while learning specialized knowledge [6] CBI believes that language and content are interdependent. Language is the carrier of content, and content reflects the specific application of language. Learners acquire language while learning content, and the improvement of language ability makes it easier for them to learn subject knowledge carried by target language [7]. This teaching concept advocates the teaching of a second language or foreign language by means of subject content, which is effective, authentic and combines the learning of language and content [8]. CBI language course is strongly discipline-oriented. It combines language learning with subject matter study, which shifts the focus from language itself from the subject matter of a discipline [9]. This teaching concept can not only improves students' language ability, but also cultivates their academic capacity. CBI emphasizes the learning of subject content, the authenticity of language materials, the novelty of information and the needs of students. Language teaching under this concept improves students' English ability on the

premise of fully meeting their learning needs and stimulating their learning enthusiasm. In this process, students learn professional knowledge, understand the latest information of the subject, and cultivate academic ability

English for Academic Purpose (EAP), a branch of English for Specific Purposes (ESP), was originally put forward by Tim Johns in 1974 [10]. It advocates that in university setting, English teaching should train students to use the language in academic study or research, and to make academic exchange [11]. An EAP program focuses instruction on skills required to perform an academic study in English context in specialized subject areas. Such English course is based on learners' specific academic goals and needs. EAP teachers not only enable students to learn English, but also help them to construct their subject knowledge system and grasp subject cultural background in English. EAP teaching mode is highly promoted in college English teaching to cultivate research-oriented, high-level international talents [12]. In most cases, EAP courses employ content-based instruction, using academic materials from the students' degree subjects. Such courses may be desirable to help students develop language skills and academic capability

Both CBI and EAP emphasize the use of English as a tool to help students learn professional knowledge for cultivating students' academic ability and professional quality, encouraging them to use English for international academic exchanges. In the process, students' English competence is improved. In addition, in CBI and EAP classroom, teachers and students focuses on academic content, then the language becomes a tool indispensable in learning subject content and doing research. In such a classroom, the roles of students and teachers have changed dramatically. Instead of being passive language learners, the students become active language users, who use English to learn specialized academic knowledge to do researches required by the program or by their advisors. In such a model, teachers are the guides and supervisors of students' active learning process, in which they organize the class, motivate and guide students, control steps of the teaching and learning, learn with students the academic materials in different fields. CBI and EAP teaching can take many forms, including classroom teaching, topic discussion, supervision and inspection, individual counseling, professional literature reading, report, and paper writing [13].

3 Design and Procedures of the Content-Based Academic English Instruction

3.1 Teaching Design

Academic English instruction is faced with questions as what to choose as teaching materials (content) and how to conduct the teaching. Graduate students are very specialized in their fields of study, and even in same major, they may choose different research directions or focuses. However, as far as academic English are concerned, it is impossible for English instructors (whose majors are mostly linguistics or literature) to teach the content of different fields, especially those of science and engineering, which

is beyond their reach. The successful practices (models) abroad in academic English course are taken by two instructors, one for the subject content and the other for language teaching. In such modes, the two instructors cooperate with and complement each other. One is responsible for instructing academic knowledge and the other for language skills. However, the university the author teaches does not have conditions for such a model. Moreover, as a common required course, one English teaching class is often composed of graduate students from multiple discipline directions, so it is hard to conduct academic English instruction with unified materials or contents in students need. Therefore, based on the concept and theory of CBI and EAP, we decide to use academic materials of students' research fields prepared by graduate students themselves after consulting with their advisors, and the English class is conducted in the way of students' independent study with supervision from the English instructors. In teaching process, which is more suitable to be referred as independent and collaborative learning process of students, English instructors mainly help students in their understanding and use of English, as well as the general approach in academic learning, such as how to read literature, how to write literature review, and how to prepare for an academic presentation, etc.

In each class, students are divided into several groups according to their majors and research focuses. Each group is required to determine a list of English academic articles in their specialized research fields for them to study in the semester. Then they are required to study one article each week and to carry out series of tasks. The design can be summarized as "literature reading + corpus building + class presentation and discussion + paper review writing".

The teaching design of academic English for one school hour can be illustrated as follows. The instructor requires students to study one academic article each week and to complete the following tasks individually or in groups. (1) Students are required to find out the research topic, research purpose, theoretical basis, research methods or experimental steps, research results and conclusions and research creativities or innovations, etc. of the research paper. (2) They are required to build an academic corpus in which they need to collect and sort out the English specialized academic terms, expressions and typical academic sentence patterns involved in the literature they read. (3) They need to make PPT for class presentation. The instructor selects 4–5 groups each week to present the research articles they study in class. The presentation lasts for no more than 8 min each. Then the class will discuss around the presentation and the article. (4) Finally the instructor requires the students to write a review of about 300 words in English based on the article they have read and to submit it to the teacher along with the corpus they have made. As English language instructors, they mostly make judgements on the logic, the structure and the language use of the review.

In this teaching design, the content of students' learning fully conforms to their research directions and demands of their advisors, which also meets requirements for the degree. In the process of learning specialized academic literature, students can improve their English communicative competence and academic research ability. While studying the academic papers, students construct academic knowledge in their

specialized fields and learn the procedures, methods and theories of academic research. Corpus building aims to guide students to accumulate professional English academic terms, expressions, and to understand English academic discourse. Class presentation and discussion can cultivate the ability of graduate students to participate in international academic conferences and to make international academic communication. Paper review is to train students in writing academic papers in English through which they can fully study and internalize the English academic materials. This teaching design uses task-based teaching method, focusing on students' independent as well as cooperative learning. The instructor is responsible for organizing each step of the teaching, making judgments and guidance to the language use and the way to do academic research. In this process, the English teacher can learn the specialized knowledge together with students and participating in classroom discussions. Such a teaching design can effectively avoid the dilemma that language instructors cannot conduct academic English teaching because they do not understand the professional knowledge of various disciplines. In addition, this mode makes English classroom a place of learning specialized knowledge for graduate students. It not only improves students' language skills, but also encourages them to use English as a tool for academic learning and research.

3.2 Teaching Procedures

The procedures of the “academic English” teaching model can be summarized as the following 4 steps in which 7 tasks should be carried out (see diagram 1):

Step 1(task 1). Determining the materials to study. In the first weeks of the class, students are required to work in groups (groups are divided by majors, mostly students of the same advisor are divided into one group) to determine the English academic articles to study in a semester in consultation with their advisors and professors in their research fields.

Step 2. Assigning the pre-class tasks. The language teacher assigns students to read one academic article one week in advance, and to complete the following tasks in group cooperation and independent learning:

Task 2. To answer questions. What is the research focus of this literature? What is the purpose of this study? What problems does the study aim to solve? What is the theoretical basis of the research? What research methods or experimental steps did the study use? What results and conclusions did the study come to? What are the cre-ativities or innovations of the research?

Task 3. To build academic corpus. Students are required to sort out specialized English terms/words/expression and typical English academic sentence patterns in the literature in order to establish an English-Chinese academic corpus.

Task 4. To make PPT for class presentation. Students are required to work in groups to make PPT for presentation in class.

Step 3. Conducting classroom activities.

Task 5. To make class report. Group representatives or all members of the group shall make presentation in the class on the research article they have studied in the form of PPT, and they also need to display the corpus they accumulate on academic words, terms and sentence patterns in the article. The presentation of each group should last no more than 8 min.

Task 6. To do class discussion. After the class report, a class discussion is conducted. Other students of the class ask questions around the topic of the research article. The teacher joins in the discussion and comments on the class report and class discussion of the students and points out the language problems of the students in the PPT.

Step 4 (task 7). Writing paper review. This is also the seventh task of this teaching model. Each student should independently write a review of 300 words in English based on the research article they have read and submit it to the instructor. The instructor judges the review mainly based on the logic, writing structure and language use. The instructor is not necessarily familiar with the students' majors and research fields, he/she gives general comments on the language use and research methodology.

From Fig. 1, we can see the teaching is conducted through various tasks in which students develop their language skills of reading, writing, speaking and listening by studying the academic materials they need in their graduate programs. In the process, teachers encourage students to learn academic content through both independent and cooperative learning. While students are learning the specialized academic knowledge, they acquire language communication ability. In the meanwhile, they also improve their self-learning ability and cultivate the capability to cooperate and communicate with others. In such an academic content-based classroom, students are active knowledge constructors and motivated learners rather than passive receivers. This model encourages them to learn from others, including instructors and classmates. By communicating with excellent students, they gradually improve their language skills and learn more knowledge. In this positive learning environment, students reflect on the knowledge they learn, speculate on the relationship between new knowledge and existing knowledge, and constantly deepen their understanding of the academic content. For example, in academic English learning, students learn theoretical knowledge, research methods, basic steps of scientific research, and the latest international academic trends of their majors through studying English literature. In this way, their academic ability is improved and their academic horizons are broadened. In this process, their English language ability has been developed, which in turn further helps them to learn more professional and academic knowledge. In this learning process students need to cooperate with other students, in which they need help from others, and they also need to help others, which fully embodies the experiential and constructivist learning theories, that is, learning is a process of experience and construction, at the same time, it is social activities involving interactions with others and the environment.

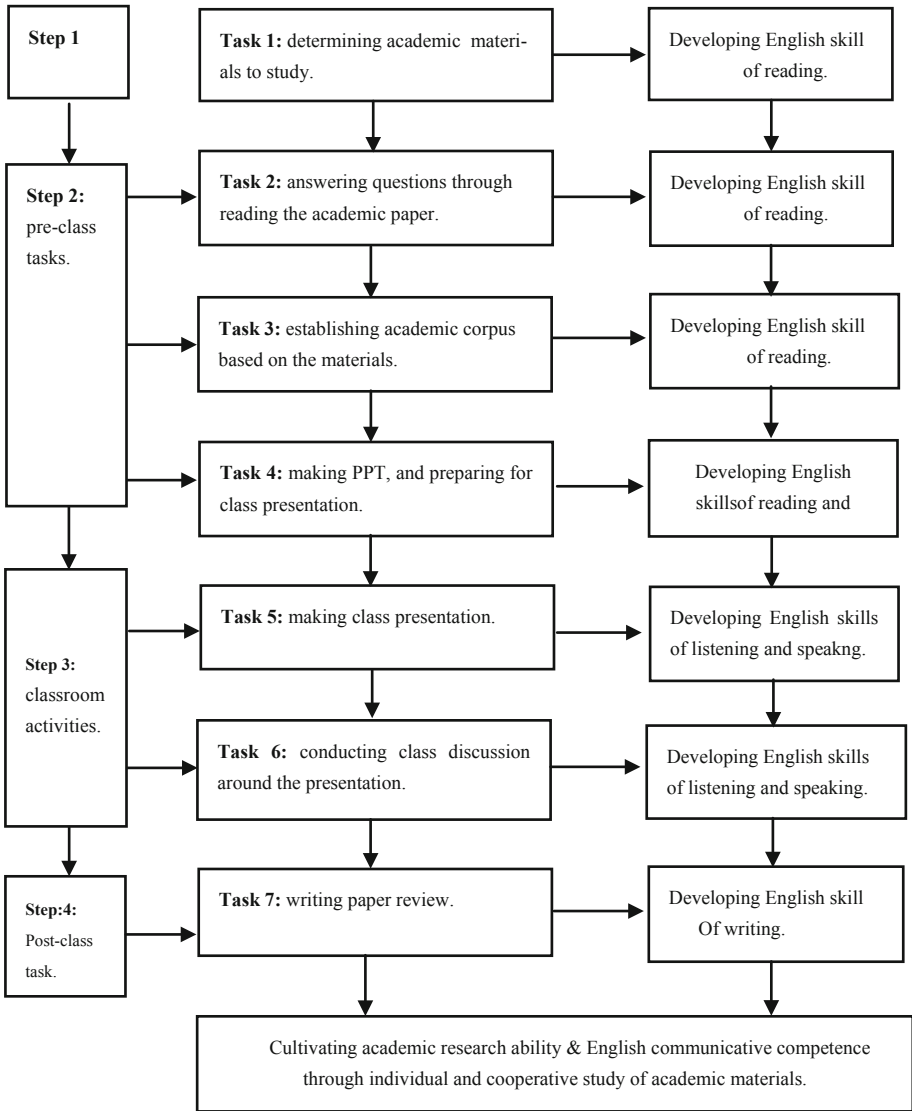


Fig. 1. Procedures of academic English course

4 Design of Examination and Evaluation

Content-based academic English teaching model differs dramatically from the teaching of general English which focuses on language skills. Content-based academic English teaching model cultivates and improves students’ English language ability by learning academic content in their research fields. Students acquire English language and develop academic competence through content learning. In this model, language becomes a tool to learn academic knowledge.

Then how to test students in such a model? What should the test focus on, academic contents or language skills? How should the instructors evaluate the learning process of students to make assessments? We hold that the goal of academic English teaching is to train students to use English for academic research and international academic exchanges. And to examine students' academic English in the form of literature review writing is a way to comprehensively examine and judge students' ability to use English for literature reading, paper writing and academic research. In this model, students learning process is as important as the final submission because this mode of teaching is student-centered. In instruction, students need to complete the tasks required by teachers through independent learning and cooperative learning. In class, they frequently need to make presentations, to participate in discussions. Only by controlling every step of teaching and learning well and by conducting quantitative evaluation on students' performance, can teachers make this teaching mode effective.

As a result, we establish the following examination and evaluation system. (1) English academic ability examination. Students are required to write a standard literature review in English on a certain topic of their research fields with no less than 2000 words. (2) Process evaluation. In the whole teaching process, instructors quantitatively evaluate students' class attendance, paper review writing, and classroom performance including class discussion, class presentation, academic corpus they made. (3) Students' final scores are composed of two parts: the final literature review accounts for 50%, and process evaluations account for 50%.

Such a test design adequately embodies the ultimate goal of academic English teaching and learning. English literature review writing can comprehensively examine students' capability in using English for academic research. Process evaluations are vital for the success of this student-centered model. In this model, most of the tasks are carried out by students individually or collaboratively, while the instructor is only a classroom controller, an evaluator and coordinator of the student's learning process.

5 Conclusion

This content-based academic English instruction practice develops the model of "literature study + academic corpus building + classroom presentation and discussion + paper review writing". In such a student-center classroom, learning is done independently and cooperatively. In this model, students are exposed to a large amount of input in a natural language environment through academic study. Moreover, unlike the teacher-centered classroom, where students are in a passive position, content-based academic English class makes students the center of the classroom activities, in which they deeply involve in learning materials in combination with their academic research with a series of tasks. Finally, it provides students with various opportunities to use English as a tool to do research and academic study. In a word, in such a mode of learning, English is acquired through doing academic study and research.

Content-based academic English instruction is in line with the practical needs of graduate students and the goal of graduate student cultivation. This model enables students to improve their English language competence by learning specialized academic knowledge. In this way, their international communication ability and academic

vision are improved. This practice solves the challenge that graduate English instructors face in implementing academic English teaching due to limitations in specialized knowledge, and it provides an approach of academic English instruction for master and doctoral students.

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