

Research on Experiential College English Teaching Model Based on Engineering Education Accreditation: Taking Quzhou University as an Example

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Abstract: Aiming at solving the problems of traditional English teaching, this study explores the experiential teaching model from the perspective of teaching objectives, teaching content, teaching method and evaluation system based on engineering education accreditation.

Keywords: Experiential Teaching Model; College English Teaching; Engineering Education Accreditation

1. Introduction

Engineering education accreditation is an internationally recognized system for ensuring the quality of engineering education, and it is also an important foundation for achieving international mutual recognition of engineering education and engineer qualifications. Therefore, many engineering programs in various universities are currently applying for or preparing for accreditation. The core of engineering education accreditation is “student-centered, outcome-oriented and continuous improvement”, establishing and utilizing various advantageous resources both on and off campus, and cultivating professional engineers with international perspectives and cross-cultural communication skills that society needs through systematic, comprehensive, and effective engineering education activities. For such engineers, English proficiency is essential. In this context, how to achieve the requirements of engineering education accreditation, and how to reform and design the teaching model for engineering majors have become the top priority of College English teaching in many universities .

College English is a compulsory basic course for non-English majors. However, during such a long period of development, there have also arisen some problems in college English teaching. For instance, here are some problems in our university: training objectives are not combined with program features; teaching content is less connected with professional development; teaching mode is rigid and many students don't take their own initiatives to learn.

2. Theoretical basis

The experiential English teaching model is driven and guided by learners' positive psychological experiences by using scenes, interactions, tasks/projects, and collaborative learning as the main methods, while more modern information technologies are utilized to integrate English teaching resources(Liu Yuan, 2011). In this model, an ecological and humanistic environment for English learning is built, and language communication ability is finally acquired through the experiential learning mechanism of participation, pleasure, and resonance. The most prominent features of experiential English teaching are to pay attention to students' inner feelings during the process of English learning, strengthen the motivation system of language learning, and create a language ecological environment and humanistic environment conducive to autonomous learning. It respects the uniqueness of students and creates teaching scenes to present teaching content by giving full play to their subjective initiative, so that students can understand and construct knowledge system, develop language ability, generate emotional resonance, and generate meaningful teaching views and world views in the process of personal experience(Liu & Yang, 2020). Therefore, this teaching model corresponds to Engineering Education Accreditation because they share the same educational concepts.

3. Teaching design

3.1 Course objectives and teaching goals

The core of engineering education certification is “student-centered and outcome-based”. The teaching objectives of the course not only define the abilities that students should obtain through the course learning, but also show the standards of teaching quality and output in the context of engineering education accreditation. According to the requirements of *Engineering Education Accreditation Standards*

(2022 Edition) (CEEAA, 2022) and the actual situation of engineering programs in our university, it is necessary to set English curriculum and teaching objectives for the programs they study in order to ensure that students can apply their English knowledge in future work and learning, and also acquire English knowledge related to their majors. Taking the course of *College English 2* for Chemical Engineering and Technology major of our university as an example, the course objectives and teaching goals of Unit One are adjusted as follows:

Table 1

<p>Course Objectives of <i>College English 2</i> (Chemical Engineering and Technology)</p>	<p>The course enables students to</p> <ol style="list-style-type: none"> 1) basically meet the needs of information exchange closely related to themselves in daily life, learning, and future work; 2) be able to apply English pronunciation, vocabulary, grammar, and discourse structure knowledge in a basic and correct manner, and master some vocabulary related to chemical engineering studies or future work; 3) have a basic understanding of oral or written materials with moderate language difficulty, involving common personal, social communication, and engineering professional themes; 3) be able to engage in simple verbal and written communication on familiar engineering issues or topics; 4) be able to use limited communication strategies to communicate and communicate in cross-cultural contexts according to communication needs.
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Table 2

<p>Teaching Goals of Unit 1 Living Green</p>	<p>After learning of this unit, students are able to</p> <ol style="list-style-type: none"> 1) have a thorough understanding of the text contextually and linguistically; 2) expand their vocabulary about green living and know how to use the key words and expressions in context properly; 3) talk about the negative impact of our modern lifestyle on the environment and how to live green in our daily lives; 4) design a product which can help people to live green life and give presentation on the instruction of this product. 5) get familiar with the writing of a paragraph with a topic sentence that clearly states the main idea.
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Textbook: *New Edition Comprehensive College Advanced English Course 2* (Shanghai Foreign Language Education Press)

3.2 Teaching content

1) Making teaching auxiliary manual and creating teaching scenarios

In addition to selecting college English textbooks suitable for engineering majors, teachers should make teaching auxiliary manuals, collect videos, audio, and reading materials related to engineering majors based on each unit's theme, integrate vocabulary and discourse related to engineering majors, introduce cutting-edge academic lectures, constantly keep up with the times, conduct research on students' interest and focus, and design a series of teaching scenarios based on these. It could allow students to solve practical problems related to professional themes in English, which not only enhances their interest in learning, cultivates their independent thinking ability and innovative spirit, but also invisibly improves their English language proficiency.

2) Focusing on practicality

Based on basic English skills and practical engineering problems, teachers could encourage students to write academic paper abstracts, reports, design drafts, or product manuals, which allows them to fully utilize their abilities to analyze and solve problems and enables them to have a clearer understanding of their English learning priorities and directions.

3) Being comprehensive and diversified

For engineering majors, it is advisable for teaching content to reflect the intersection and integration of English and engineering disciplines. Teachers should attach importance to the cultivation of students' comprehensive cultural literacy, and improve their

cross-cultural communication abilities. While passing on knowledge, teachers should pay attention to the cultivation of students' abilities to acquire knowledge, analyze problems, and solve problems.

Eg. According to the teaching goals in *Table 2*, the teacher designed a group project at the end of Unit 1 related to both the theme of green life and students' engineering professional background:

The specific requirements are “*Work in groups and design a product which can help people to live green life and give presentation on the instruction of this product (no more than 3 minutes). The presentation should include: The product's name, appearance (materials), function and advantages. The presentation should be logical in content, clause in language and easy to understand.*”

3.3 Teaching methods and steps

1) Teachers design teaching scene according to students' needs and characteristics of engineering majors.

Firstly, questionnaire survey is conducted to investigate the expectation of engineering students to determine the content and methods of classroom teaching. On this basis, teachers make use of various online and offline resources to create appropriate experiential themes and scenes.

2) Students experience teaching scenes.

Students experience the scene individually or as a team in the class teaching. Then individuals or teams engage in communication and discussion, sharing their feelings during the experience process, forming effective information exchange and interaction, reviewing and summarizing their own performance in the experience. Finally, based on the shortcomings of this experiential model, students propose their own views and discuss measures for improvement.

3) Teachers adjust the teaching design.

Teachers adjust the teaching content based on student evaluation and feedback, and accumulate materials for the next experiential teaching.

3.4 Evaluation system

The evaluation subjects include teachers and students themselves. Students should not only conduct self-evaluation, but also mutual evaluation.

The evaluation forms are more diversified, not only limited to exams. Teachers can flexibly evaluate the students' performance in various teaching scenes, such as recording audios, videos, writing reports, product manuals, product design drawings, and group classroom presentations to encourage students to actively participate and strengthen the process evaluation based on abilities.

The evaluation process is dynamic, and teachers should view students from a developmental perspective, constantly adjusting their evaluation methods as students develop and grow.

5. Conclusion

In summary, the experiential college English teaching model based on engineering education accreditation advocates the basic concept of “student-centered, outcome-oriented and continuous improvement”. This teaching model has fundamentally transformed the teaching and learning concepts of teachers and students. This model respects students' uniqueness by fully utilizing their subjective initiative to create teaching contexts and present teaching content, allowing students to understand and construct knowledge systems, develop language skills, and generate emotional resonance through hands-on practice. However, the practical application of this teaching model still faces many challenges, such as large differences in students' English levels and lack of teachers' knowledge structure. It is hoped that it can be further adjusted and improved in future research and practice.

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