Research on Audio-Visual-Oral English Course Under the Concept of Engineering Education

Xianghong Gong, Aijing Li

School of Humanities and Foreign Languages, Qingdao University of Technology, Shandong Qingdao 266000

Abstract: The goal of the CDIO teaching concept is to transform experiences into abilities and values through practical routes, which coincides with the purpose of college foreign language teaching. Therefore, integrating the CDIO education concept into college audio-visual-oral teaching practice can solve the lack of language practice and weak comprehensive ability in college foreign language talent training, and provide new ideas and methods for solving the separation of theoretical teaching and practical education. This study expects to provide theoretical explorations for integrating the CDIO education concept into college audio-visual-oral teaching reform.

Keywords: College audio-visual-oral course; CDIO engineering education concept; Project-based curriculum system; Reform of teaching content

It is well known that the current problems in college English education mainly include neglecting the cultivation of students' subjective initiative, and the mechanical teaching mode affects the improvement of students' comprehensive foreign language application ability. Integrating the CDIO education concept into college audio-visual-oral teaching practice is a trial to solve the lack of language practice and weak comprehensive ability in college foreign language talent training, and provide new ideas and methods for solving the separation of theoretical teaching and practical education. On this premise, integrating the CDIO education concept with project-based teaching and effectively integrating teaching content into project content in college audio-visual-oral teaching is conductive to build a project-based teaching model based on real teaching tasks of college audio-visual-oral course, which has practical guidance significance for the current foreign language major talent training and innovation of college English teaching models.

1.CDIO Project-Based Teaching Model and the Study of College Audio-Visual-Oral Course

The CDIO engineering education concept is the latest achievement of European engineering education reform in the past 20 years. It is an educational concept and program that combines practical education with theoretical education. It takes the product life cycle from product research and development to product operation as the carrier to enable students to learn actively, practically and organically between courses.

CDIO stands for Conceive, Design, Implement and Operate respectively. Its basic connotation is mainly reflected in educational goals, teaching objectives, teaching ideas and teaching methods (Lu Hangyang, 2017; Wang Linhai et al., 2018). The CDIO engineering education concept is mainly guided by industry needs, and industry-university cooperation runs through the whole process of engineering education. In practice, it aims to promote the integration of students' knowledge, abilities and attitudes, and cultivate students' ability to discover problems, analyze problems and solve problems.

Project-based teaching is a carefully designed teaching model with real teaching tasks as the carrier. In the process of completing tasks, students acquire knowledge, abilities, skills and qualities (Wang Linhai et al., 2018). The basic connotation of project-based teaching is mainly reflected in achieving the integrity of teaching through cross-disciplinary comprehensive content contained in the project theme; teaching goals can be explored and cooperative practice through set projects for students to master relevant knowledge and comprehensive skills required for the job in the process of completing the project, and cultivate students' sustainable development ability.

The concepts of CDIO education and project-based teaching both emphasize cultivating "fully developed students" through the complete implementation process. In the process of talent cultivation, the CDIO education concept requires to be guided by industrial needs. Project-based teaching also advocates using real production projects as the teaching process, which cannot be separated from industrial development and work practice. The core of the CDIO education concept is conception, design, implementation and operation.

Its operation process is in line with the law of college foreign language teaching and learning.

The *Teaching Guide for Undergraduate Majors in English* (2020 Version) issued by the Ministry of Education points out that the purpose of college audio-visual-oral course is to train students' ability to understand English audio and video and express orally about related content. Therefore, this course focuses on training students to fully master English listening, speaking and speaking skills, improve students' English listening comprehension and speaking ability, and develop students' critical thinking and analytical skills. In addition to the training of students' basic language skills, the audio-visual-oral course also aims to improve students' ability to conduct cross-cultural communication through a variety of fresh audio-visual materials close to modern life, therefore to broaden students' international horizons, improve their language skills, pragmatic skills, strategic skills and sensitivity, tolerance and flexibility in cross-cultural communication, so as to achieve the goal of actively cultivating their thinking ability.

2. Build a Project-Based Curriculum System Based on the CDIO Engineering Education Concept

Generally speaking, the teaching model of college audio-visual-oral course is characterized by "strategy guidance, diversified interaction and multi-dimensional" (Zhang Chun, 2022). This model consists of five components: teachers, students, teaching content, teaching media and online platforms. Teachers expose students to the college audio-visual-oral teaching system through means of induction, promotion, support and guidance. Learning strategy guidance, teacher guidance, student exploration and diversified interaction are basic operating models for this course. On the basis of the implementation plan and teaching practice of this teaching model, a diversified teaching operation model is formed. This model transforms the teacher-centered audio-visual-oral classroom teaching into student-centered, and extends listening and speaking teaching to extracurricular activities.

Project-based teaching under the CDIO education concept is based on the core vocational competence and career competence that students should have in different semesters. The teaching is carried out in grades according to the law of knowledge and ability progression, and the teaching line is designed through simulation, expansion and practical training. With the progress of projects from simple to difficult, students' foreign language application ability is continuously improved (Liu Jinxia et al., 2020).

The College audio-visual-oral course decomposes work tasks into modules according to the stages of conception, design, implementation and operation. Students participate in the whole process of project practice to achieve the goals of three stages and realize the four stages of CDIO, namely conception stage, design stage, implementation stage and operation stage.

In the conception stage, teachers assign real-language learning tasks according to teaching content to help students clarify the listening and speaking project learning process, project content positioning and students' language ability development positioning. In the design stage, teachers integrate basic language skills with case teaching and conduct continuous training in a real language environment through watching, listening and speaking. In the implementation stage, students acquire listening and speaking skills through dialogues with peers and teachers. From the perspective of teachers, they design and carry out colorful cultural creation activities according to different teaching topics. On the part of students, they internalize their cross-cultural ability by designing, practicing and operating teachers' ideas, and comprehensively improve their communication ability and cultural literacy. In the operation stage after classroom teaching, students can display and comprehensively apply the learned language knowledge through online resources or regular listening and speaking competitions simulating real communication environments.

3. Reform the Teaching Content of College Audio-Visual-Oral Course Based on the CDIO Engineering Education Concept

At the beginning of each semester, teachers determine the teaching theme according to students' interests, and then select the necessary materials based on the theme. Just as the raw materials of a product are important to the quality of the product, the choice of teaching materials determines the final output quality of teaching results. Therefore, teaching materials are usually closely related to students' daily learning, life and future career development, such as learning methods, campus life, workplace rules, and cultural differences. The timeliness, interestingness and diversification of teaching materials can help students access English expressions that are rich in content, diverse in subjects, varied in style and close to life. At the same time, the profound and authentic cultural connotations contained in the teaching materials can convey more cultural information to students and enhance students' cross-cultural awareness.

Integrated multimedia listening and speaking teaching focuses on the effectiveness of input and output. According to the CDIO engineering education concept, it is usually suggested in multimedia listening and speaking courses that disciplines should support each other, and personal, interpersonal skills as well as system construction abilities of products should be effectively integrated in the

audio-visual-oral course plan (Qi Pin, Shi Xiaochun, 2016).

In terms of a comprehensive multi-dimensional learning evaluation, the CDIO engineering education concept clearly points out that the assessment of students should be dynamic. The particularity of the college audio-visual-oral course makes the transform of the traditional evaluation methods available. Teachers can comprehensively evaluate students' learning performance based on fully considering students' different personalities. Students' self-evaluation and peer evaluation are added to the evaluation of teachers. Students' performance during the learning period is not merely measured by test scores to, and the evaluation methods will be diversified and multi-dimensional.

References

[1] Liu Jinxia, Wang Xiaoxue, Wei Jing. Research on the effectiveness of Audio-

visual-oral Hybrid Teaching in the "Internet +" Environment [J]. *Computer-assisted Foreign Language Teaching*, 2020 (6): 105-112.

[2] Qi Pin, Shi Xiaochun. Design and effect of Audio-visual-oral Course Based on POA [J]. Educational Research Monthly, 2016 (8): 106-111.

[3] Shi Haoliang, Li Yue, Bian Jiaxuan. Exploration of the Hybrid Teaching Mode of College Audio-visual-oral Course Based on U-campus [J]. *English Square*, 2022 (11): 71-74.

About the author:

Xianghong Gong (1971-), female, professor at the School of Humanities and Foreign Languages, Qingdao University of Technology. Research direction: Applied Linguistics and English Teaching;

Aijing Li (1987-), female, lecturer at the School of Humanities and Foreign Languages, Qingdao University of Technology. Research direction: Applied Linguistics, English Teaching Methodology. (Shandong Qingdao 266520)